JULY 25, 1942

Railway Age

Founded in 1856

McCARTNEY LIBRARY
GENEVA COLLEGE

Big Guns ON LAND AND SEA

JUST as the big guns of our fighting forces are vital for Victory on the battlefronts, so are the "big guns" of American railroads equally important on the *transportation front.* Never before in our history have the railroads been faced with such great *transportation responsibility* — that of moving our fast growing armed forces, materials and supplies with the maximum of safety and dispatch.

★★ General Motors 5400-Hp. Diesel Freight Locomotives have been rightly called "Big Guns" because of the super-performances they are delivering, such as reduction in train miles as much as 50% — increased hauling capacity — faster schedules with fewer service delays — high availability . . . and for each Diesel operated, release as many as five heavy steam locomotives for other important services — increased carrying capacity of existing track facilities without expensive replacements with heavier rail or rebuilding of bridge structures.

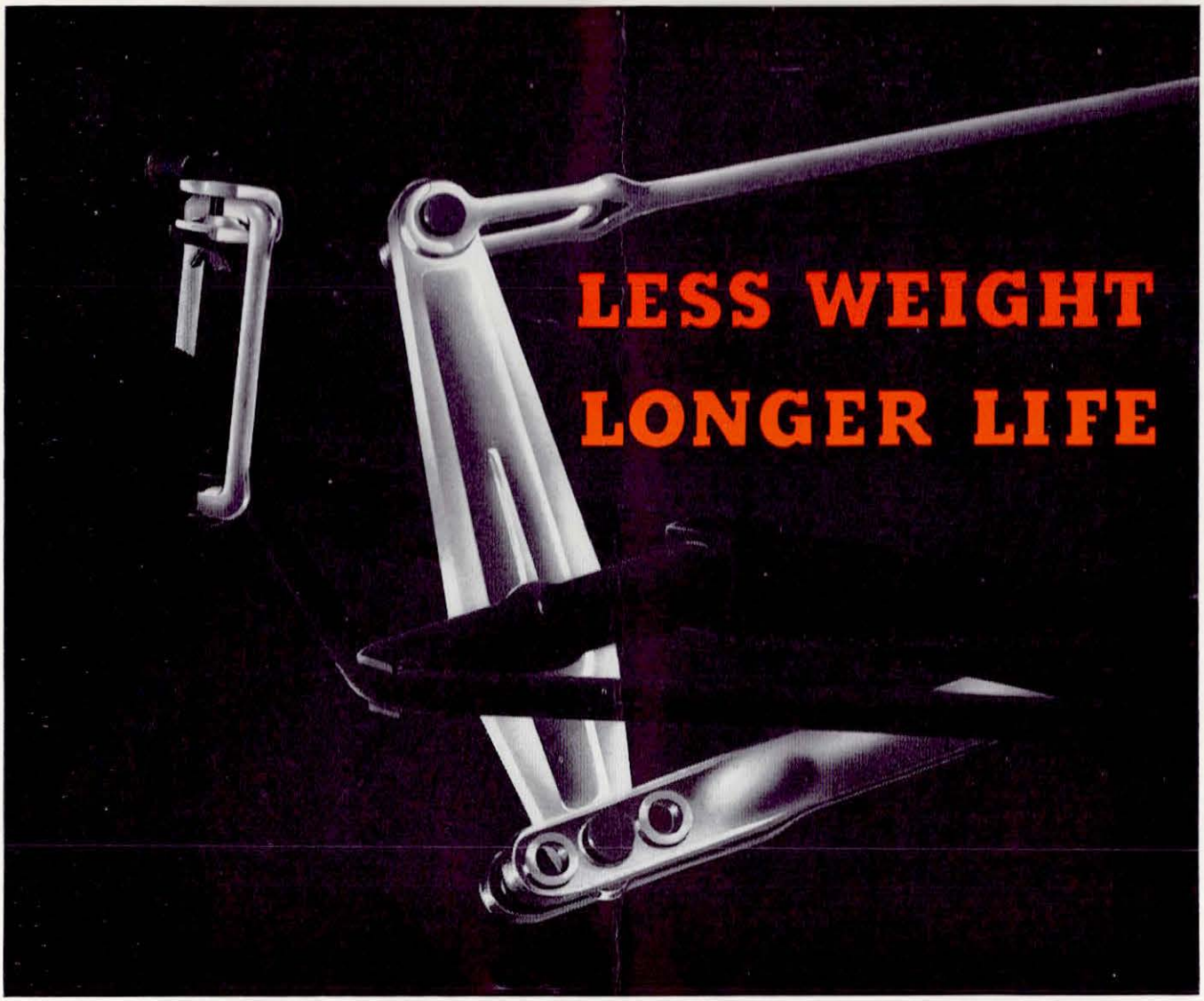
★★ And in the *conservation of vital materials,* one ton in a GM Diesel locomotive will do the work of more than two tons of materials in a steam locomotive.

GENERAL MOTORS LOCOMOTIVES

TRANSPORTATION IS VITAL FOR VICTORY

ELECTRO-MOTIVE DIVISION

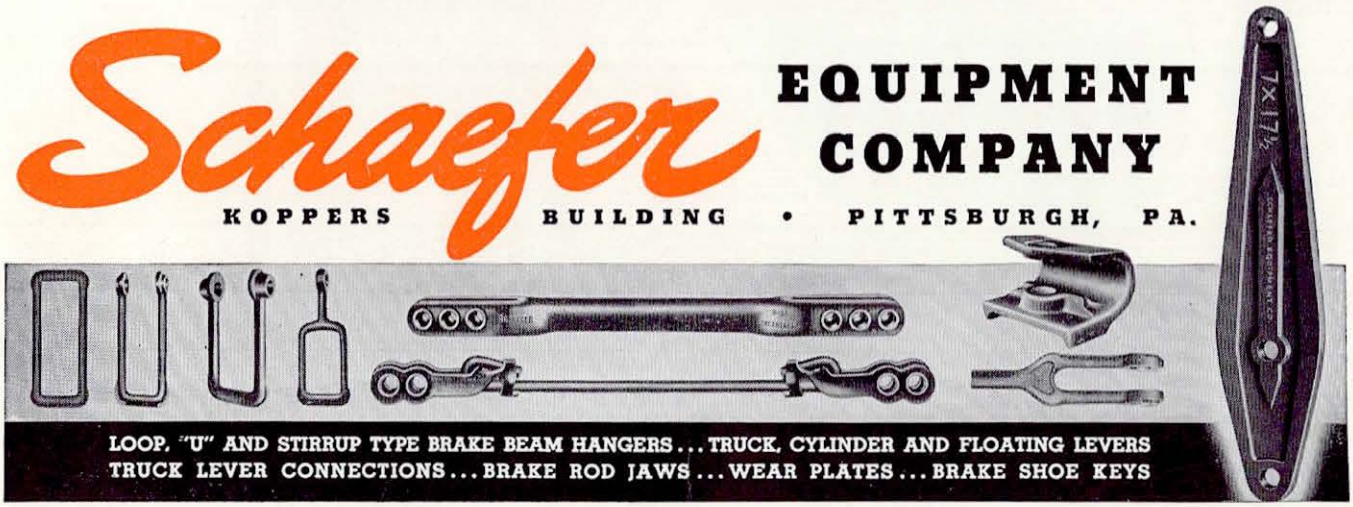
GENERAL MOTORS CORPORATION LA GRANGE, ILLINOIS, U. S. A.



Schaefer Forged Steel Foundation Brake Gear Parts enable you to haul today's vital freight with greater safety

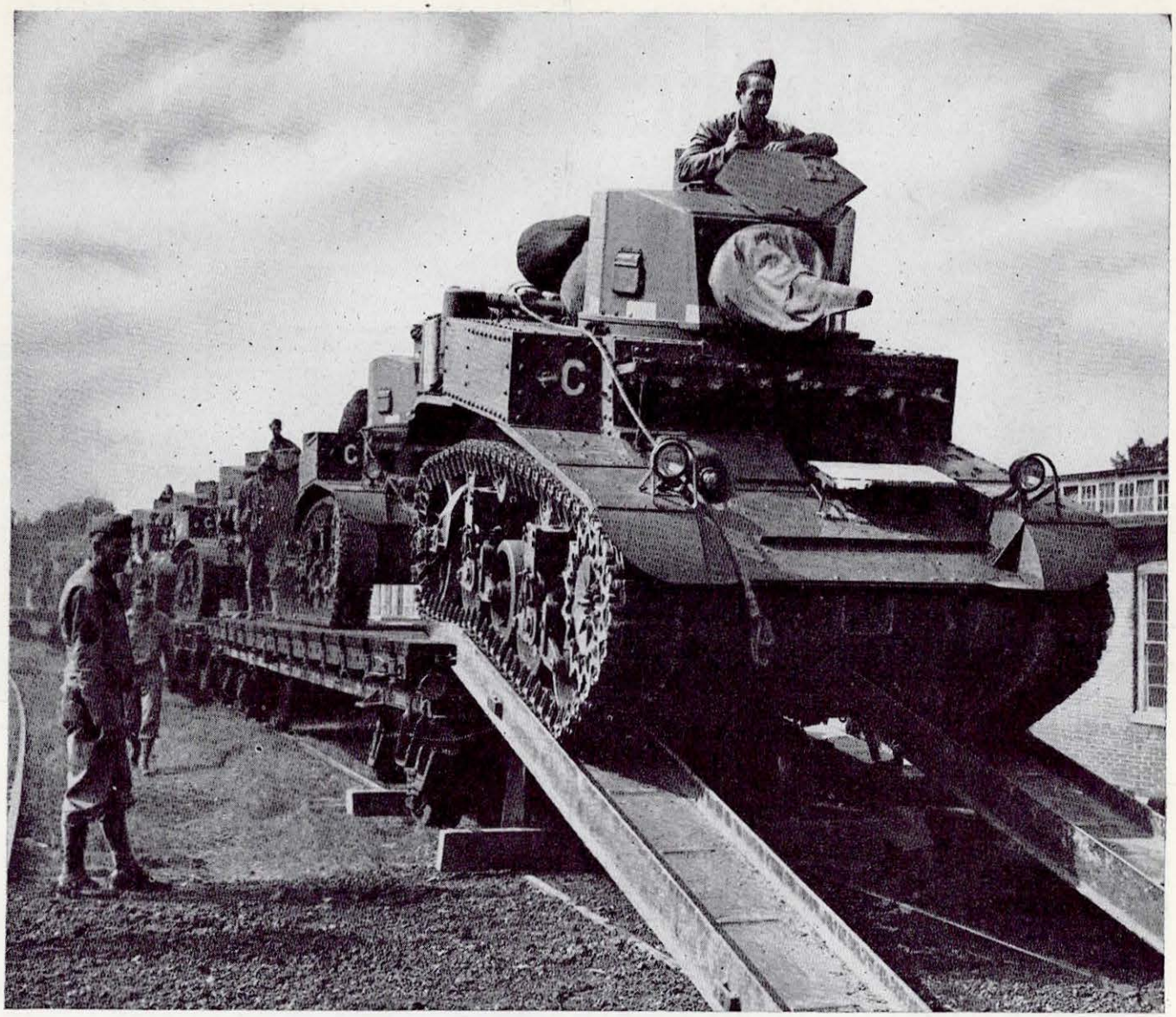
Schaefer EQUIPMENT COMPANY

KOPPERS BUILDING • PITTSBURGH, PA.



LOOP, "U" AND STIRRUP TYPE BRAKE BEAM HANGERS... TRUCK, CYLINDER AND FLOATING LEVERS
TRUCK LEVER CONNECTIONS... BRAKE ROD JAWS... WEAR PLATES... BRAKE SHOE KEYS

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price $6.00 for one year U. S. and Canada. Single copies, 25 cents each. Vol. 113, No. 4.



They ride *before* they roll

From the assembly floor of the tank arsenal the finished tank goes to the delivery point—by rail. From widely-scattered production centers, materials and parts are carried to the places of assembly—by rail. And so on, through every phase of production, back to the raw materials, the railroads are playing an essential part. The war production program has brought America's railways the biggest job in their history.

In spite of difficulties and shortages of needed supplies and equipment, the job is being done. As output of fighting equipment steadily rises, a generous portion of the credit must go to the railways.

Bethlehem has long supplied steel products as well as a number of specialties to railways. Rails and accessories, track equipment, wheels and axles, plates and other Bethlehem products are today helping the railways of America to carry troops, deliver tanks and trucks, haul parts and materials to airplane assembly plants, and in countless other ways perform their vital role in all-out war production.

BETHLEHEM STEEL COMPANY

BETHLEHEM STEEL

They're on the house, gentlemen

U·S·S
High Tensile
Steels

USS

UNITED

2200 extra freight cars!

. . . THEY COST NOT A PENNY TO BUILD

. . . THEY OPERATE FOR EXACTLY NOTHING

. . . THEY'RE THE BONUS CAPACITY MADE POSSIBLE BY COR-TEN

IN all, more than 43,000 lightweight freight cars built of COR-TEN are now in service. In each of these cars from 2 to 5 tons of deadweight has been trimmed off by COR-TEN construction. Each of these cars can carry an average of 2.65 tons more payload. Here is a grand total of 110,146 *extra* tons of carrying capacity that doesn't cost an extra cent to haul and *from which the revenue is all clear profit.*

Do you wonder that the owners of this COR-TEN equipment feel rather pleased with themselves? War-time freight service has merely served to emphasize their sound judgment in taking advantage of the benefits inherent in lightweight construction. For now, when heavy loading is the order of the day, they are able to fully utilize the additional payload capacity this lightweight equipment makes available. And because these COR-TEN cars, carrying additional freight load, take no more power to pull and require less power to move when empty, they are not only saving cars but saving power and fuel as well.

Not one owner but wishes he had more COR-TEN cars in service.

Today, every pound of COR-TEN being produced is for essential war equipment. But when that job is done, COR-TEN will be back to serve you. That is why we believe it important to remind you of the outstanding contribution COR-TEN has made in improving freight car construction in the past, so that you will not forget to include this superior steel in your planning for the future. Our engineers will gladly assist you in this connection.

AMERICAN STEEL & WIRE COMPANY, *Cleveland, Chicago and New York*
CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago*
COLUMBIA STEEL COMPANY, *San Francisco*
NATIONAL TUBE COMPANY, *Pittsburgh*
TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham*

Scully Steel Products Company, Chicago, *Warehouse Distributors* · United States Steel Export Company, New York

STATES STEEL

THE AMERICAN BRAKE SHOE AND

BRAKE SHOE AND CASTINGS

Controlling SPEED through Research

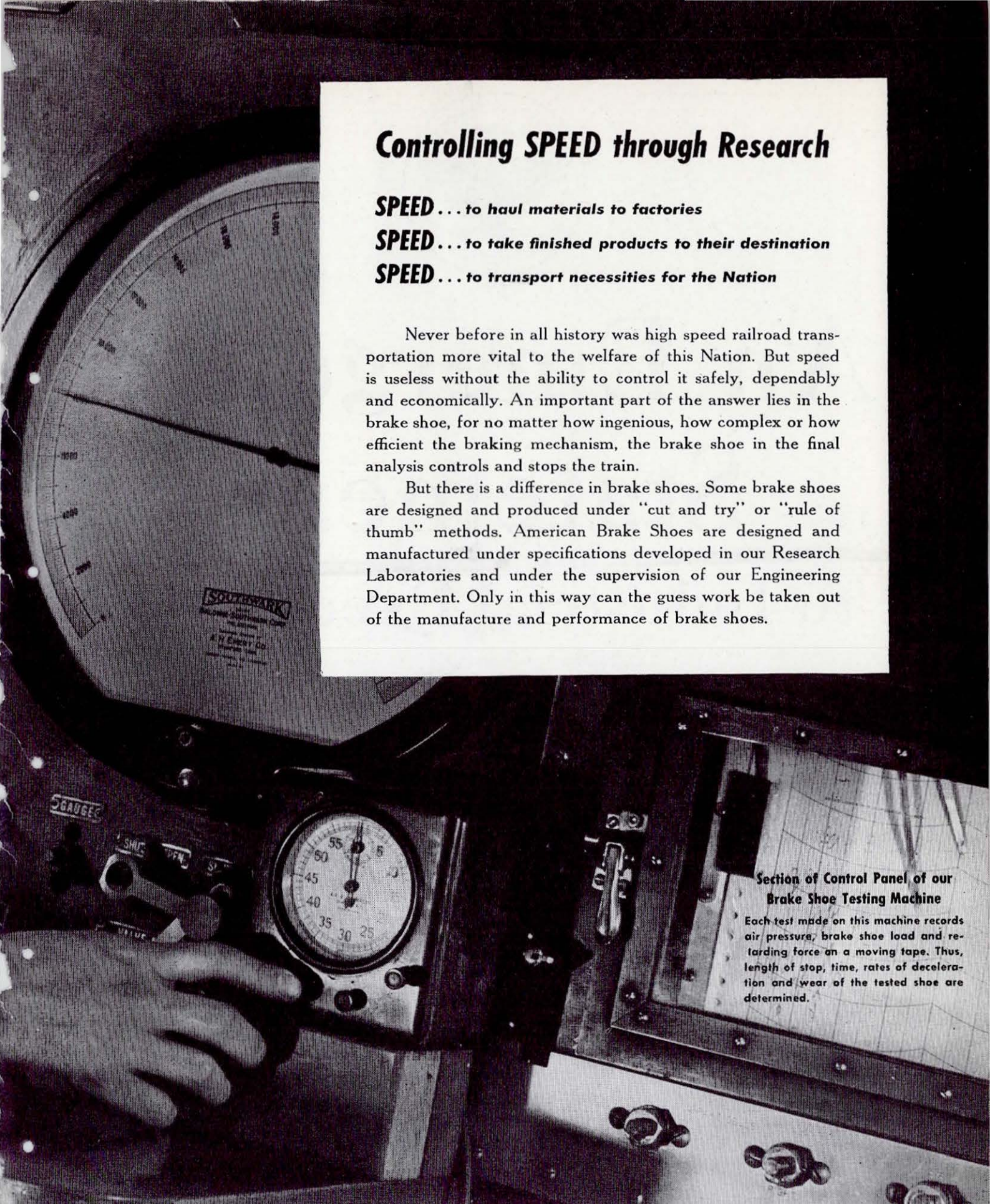
SPEED *... to haul materials to factories*

SPEED *... to take finished products to their destination*

SPEED *... to transport necessities for the Nation*

Never before in all history was high speed railroad transportation more vital to the welfare of this Nation. But speed is useless without the ability to control it safely, dependably and economically. An important part of the answer lies in the brake shoe, for no matter how ingenious, how complex or how efficient the braking mechanism, the brake shoe in the final analysis controls and stops the train.

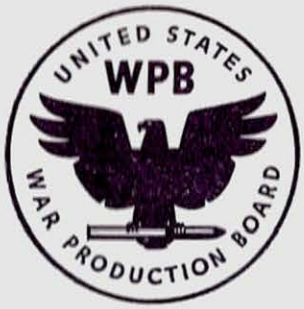
But there is a difference in brake shoes. Some brake shoes are designed and produced under "cut and try" or "rule of thumb" methods. American Brake Shoes are designed and manufactured under specifications developed in our Research Laboratories and under the supervision of our Engineering Department. Only in this way can the guess work be taken out of the manufacture and performance of brake shoes.



Section of Control Panel of our Brake Shoe Testing Machine

Each test made on this machine records air pressure, brake shoe load and retarding force on a moving tape. Thus, length of stop, time, rates of deceleration and wear of the tested shoe are determined.

FOUNDRY COMPANY
DIVISION



An Emergency Statement

to Industrial Executives

Manufacturers—large and small—have a special opportunity to aid the war effort—over and beyond the contribution they are already making.

That opportunity is Salvage.

No matter how much scrap is dug out of the attics and basements of homes, the fence corners and gullies of farms, war production factories will still fall far short of the scrap material needed unless the manufacturers of America get 100 per cent behind the program.

Six million additional tons of scrap iron and steel alone, as well as vast quantities of rubber and other materials, are urgently required to bring our war program to full strength.

Whether you are a lace curtain manufacturer or a maker of drop forgings the obligation is the same.

The job is more than simply collecting scrap material around the plant, or turning in the scrap which is created on the premises. It is a job of condemning obsolete machinery, clearing out unusable stocks, obsolete tools, dies, drills, fixtures, etc.

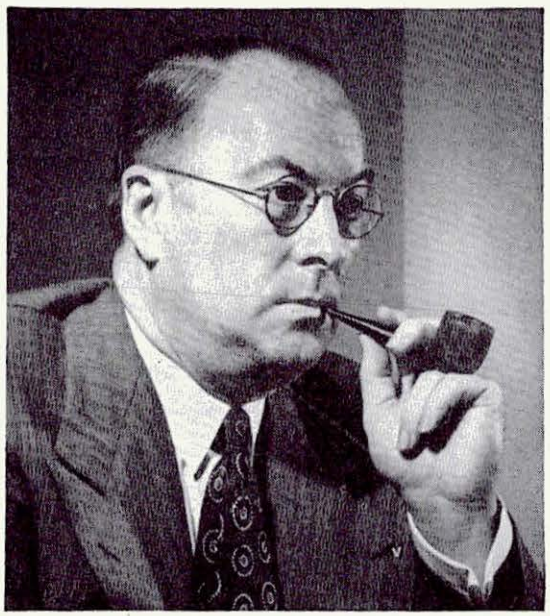
All unusable material, equipment, and stocks should be scrapped at once and put back into war production.

The philosophy of "It may come in handy some day" must give way to the doctrine of "My country needs it now."

Patriotic volunteer committees of executives are already hard at work on this problem in 421 industrial centers.

The Industrial Section of the Conservation Division has a corps of technical advisers who are prepared to work with all types of industries.

A thoroughgoing Salvage program in a factory can not only help meet the present emergency, but can help prepare that factory for its postwar operations through the elimination of once wasteful practices.



All unusable material, equipment, and stocks should be scrapped at once and put back into war production. Please read this message and act **now.**

D. M. NELSON, CHAIRMAN, WAR PRODUCTION BOARD

1 The first thing to do is to put some one individual in charge of Salvage in all departments of your business and give him not only the responsibility to act, but the authority to act.

2 The next thing to do is to get in touch with your local Industrial Salvage Committee and map out a detailed program with the materials and ideas that are available. Their program contains 17 simple steps.

If in any doubt, write or wire at once to the Conservation Division, War Production Board, Railroad Retirement Building, Washington, D. C.

This job is being tackled by a democratic nation through the volunteer efforts and initiative of democratically managed industrial concerns, rather than through directives or compulsion as it is done in Axis countries.

Every executive, every superintendent, every foreman and every worker in every plant can help.

The main thing is to get started now.

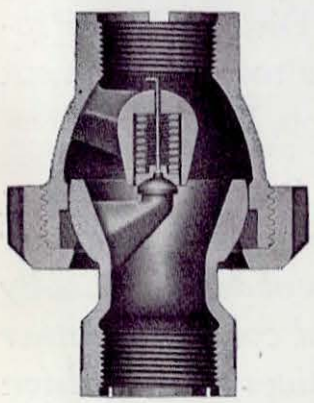
This message approved by Conservation Division

WAR PRODUCTION BOARD

This advertisement paid for by the American Industries Salvage Committee (representing and with funds provided by a group of leading industrial concerns).

SCRAP FROM HOMES AND FARMS—As individuals, search your home from attic to basement. Search your garage. Look at the old familiar things in a new light. Do you need them—or can you get along without them? Your country needs every pound of scrap iron and steel, other metals, rubber, rags and burlap to provide the fighting materials our armed forces must have. Take your scrap to the nearest Salvage Depot—give it to a charity—or sell it to a Junk dealer. . . . If you live on a farm, consult your County War Board or your farm implement dealer. In any case, your scrap will flow back into the blood stream of our war production.

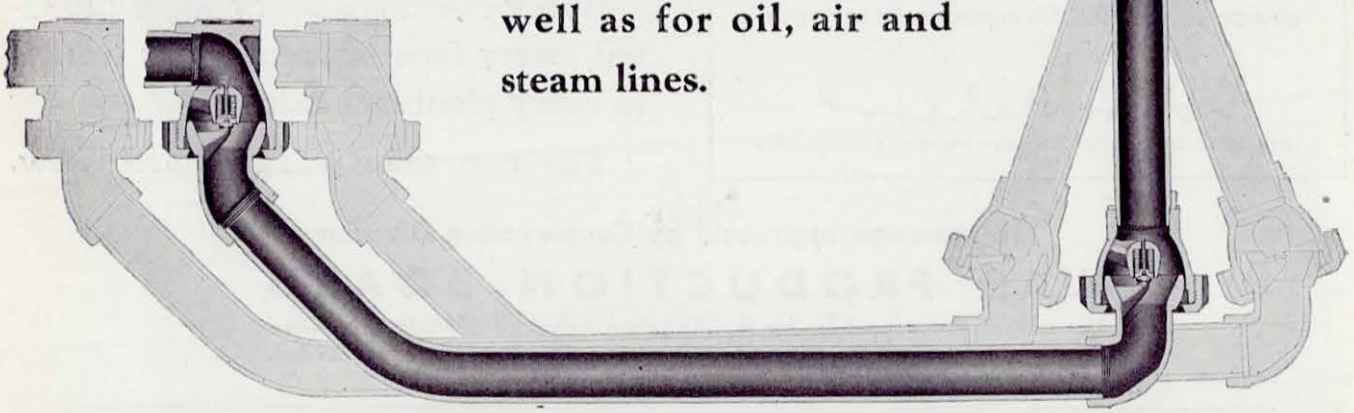
CONSERVING RUBBER ON THE RAILROADS



BARCO ALL METAL
ENGINE TENDER CONNECTIONS

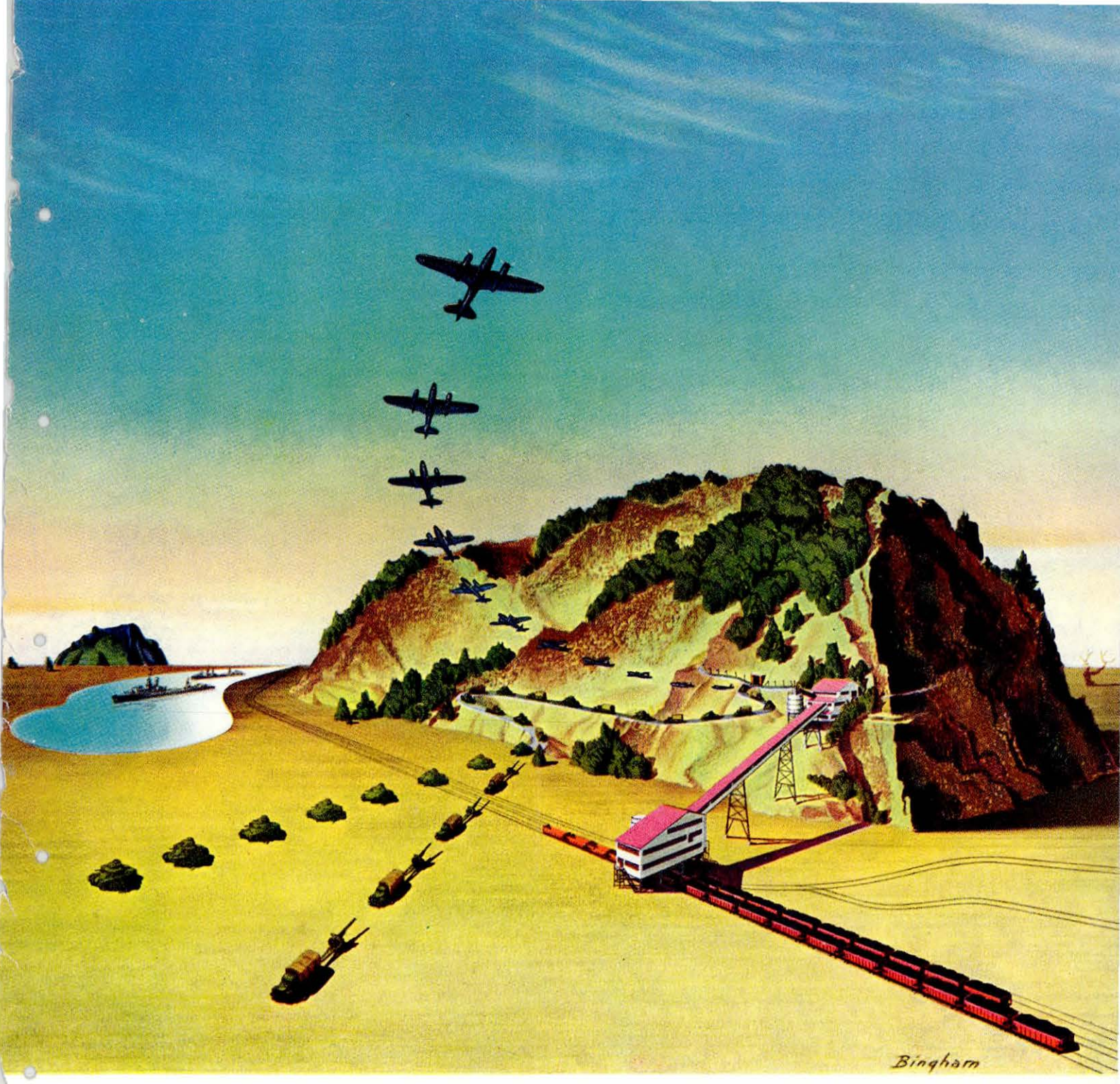
Greater Efficiency—
Greater Reliability—Reduced Maintenance

Now available for feed-water connections up to and including 4" pipe, as well as for oil, air and steam lines.



BARCO MANUFACTURING COMPANY
1800 W. Winnemac Ave. NOT INCORPORATED Chicago, Illinois

In Canada THE HOLDEN COMPANY, LTD.
Montreal — Moncton — Toronto — Winnipeg — Vancouver



Ships, planes, guns, tanks start in a coal mine

This is a war of machines and armaments, and vast quantities of power are required to build them. Despite all the other forms of energy, 60% of all horse-power required by American industry comes from coal.

Our whole civilization is based on coal, and our whole *defense* of that civilization is based on it. Coal provides heat. Gasoline can be made from coal. Rubber is about to be made from it. Many vitamins are coming from coal's derivatives.

Coke made from coal is indispensable to steel. Railroads consume one out of every five tons mined. Dozens of vital industries look to it for one or more of the 150,000 chemical compounds already identified through coal carbonization.

Koppers builds most of the coke ovens which carbonize millions of tons of coal . . . is an important producer of chemicals for war . . . of anti-aircraft gun mounts, airplane catapults . . . airplane, submarine, diesel and automobile piston rings . . . Fast's Couplings for power transmission . . . pressure-creosoted timber, ties and piling . . . and dozens of other products. Koppers Company, Pittsburgh, Pa.

Buy United States
War Bonds and Stamps

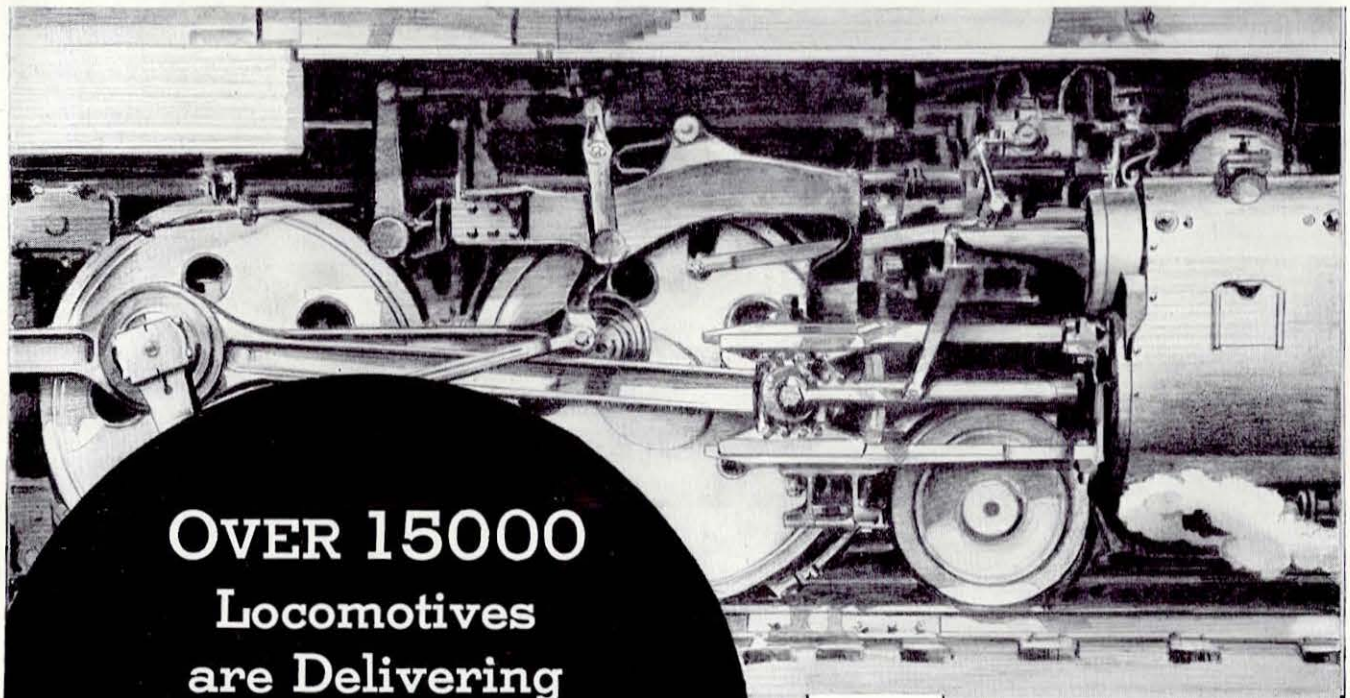
KOPPERS

THE INDUSTRY THAT SERVES ALL INDUSTRY

Workers in our Bartlett Hayward Division are now privileged to wear the Navy "E" emblem

STANDARD STOKERS

KEEP 'EM ROLLING AT TOP SPEED

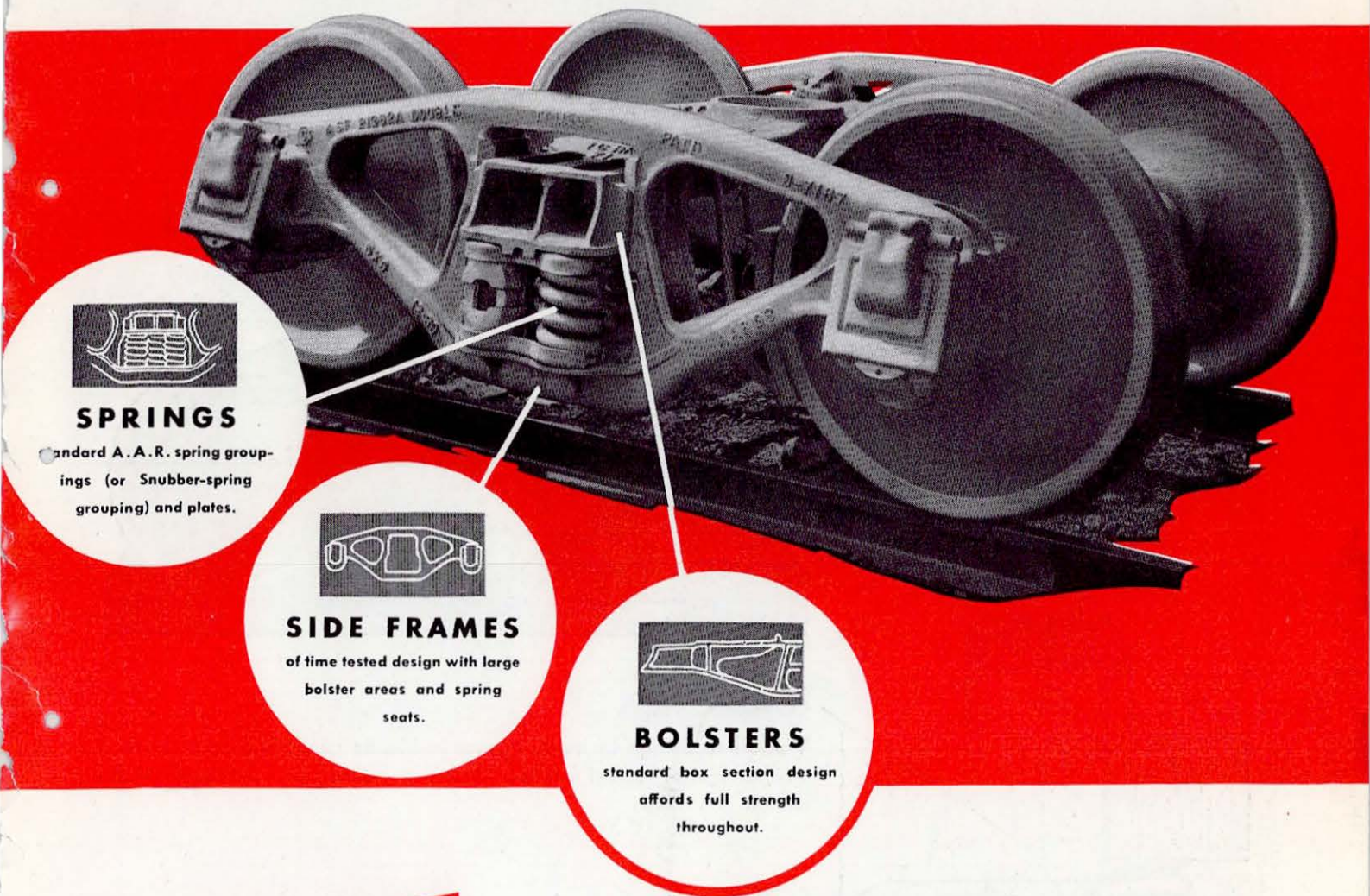


OVER 15000
Locomotives
are Delivering
Maximum Capacity
at
Sustained High Speed
with
Standard Stokers

THE STANDARD STOKER COMPANY, INC
NEW YORK • CHICAGO • ERIE •

SSC
REG. U. S. PAT. OFFICE

Consider the *simplicity* of the Self-Aligning Truck



SPRINGS

Standard A.A.R. spring groupings (or Snubber-spring grouping) and plates.

SIDE FRAMES

of time tested design with large bolster areas and spring seats.

BOLSTERS

standard box section design affords full strength throughout.

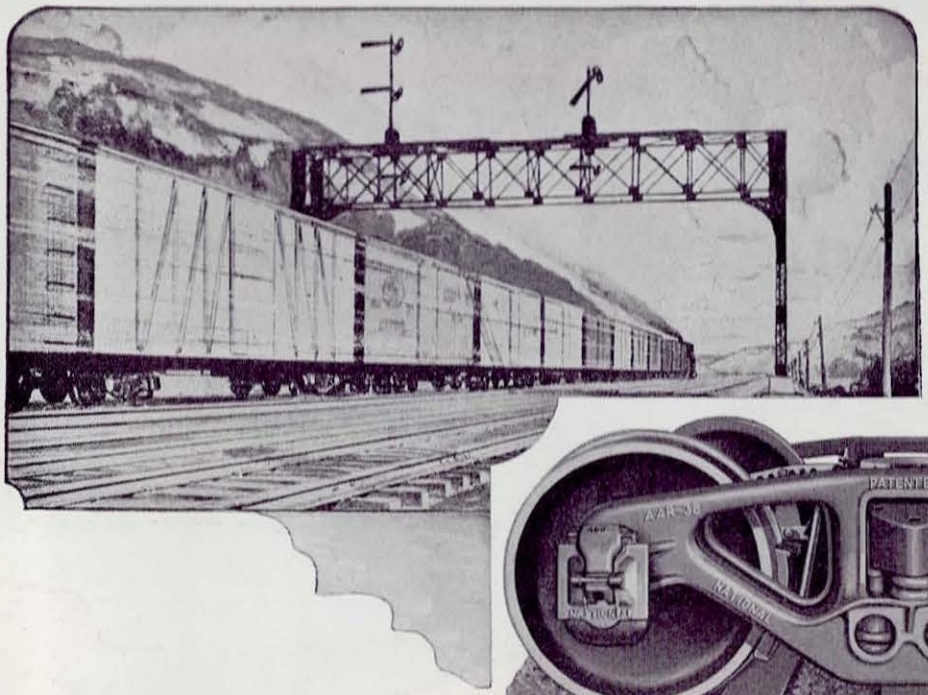
SELF-ALIGNING TRUCKS utilize designs of *proved* dependability

These are the only parts in the assembly in addition to parts common to all trucks. No special parts are used and spring planks are eliminated.

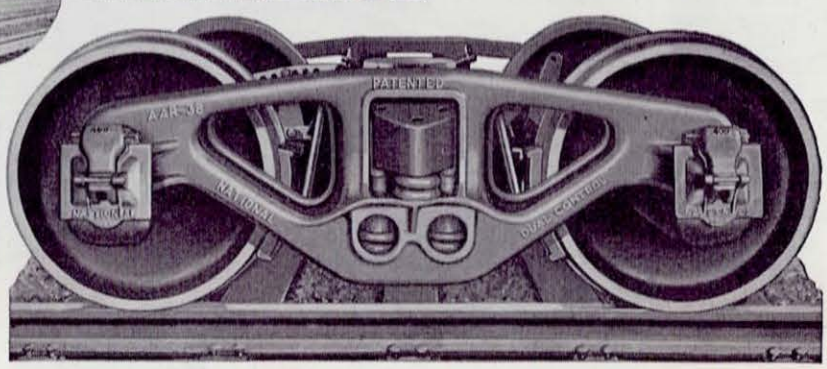
Self-Aligning Trucks are in service under more than 100,000 cars.

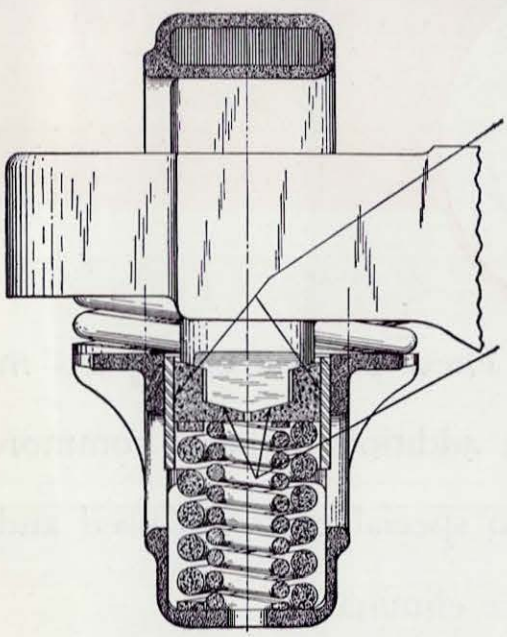
AMERICAN STEEL FOUNDRIES

NATIONAL B-1 TRUCKS with DUAL CONTROL



Smooth Riding at High Speed





Section Thru Control Unit

2 Units in Each Side Frame

CONTROL No. 1

Vertical oscillation or spring bounce is friction controlled by pressure of wedges against a steel bushing, during spring action. This protects the lading.

CONTROL No. 2

Horizontal oscillation is controlled by opposing angles of incline on the friction wedges, which center the bolster trunnions and resist forces which tend to throw the truck out of square. This is necessary for safety in high speed service.

No spring plates are required
Springs are held in position
Wheel changes can be made in
a few minutes when necessary—

They meet all A.A.R. requirements.

NATIONAL MALLEABLE AND STEEL CASTINGS CO.

General Offices: CLEVELAND, OHIO

Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco

Works: Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.

Canadian Representatives: Railway and Power Engineering Corporation, Ltd., Toronto and Montreal

BEFORE THE LAST BOMB FALLS . . .

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

American air bases have been bombed in this war and they will be bombed again. But they don't *stay* bombed. To the dauntless spirit of our Air Force ground crews and the machines at their command goes credit for the speed with which runways are restored to service.

Almost before the last bomb strikes — while our fighter planes and anti-aircraft batteries are still taking vengeance in the sky — a helmeted soldier drives his "Caterpillar" Diesel Tractor on the field. He is master of a steel brute, rugged and powerful, built to conquer the toughest earth-moving jobs. In front of the great bulldozer-blade, tons of dirt and rock tumble back into bomb craters. And in a matter of hours — not weeks — the base is ready again.

"Caterpillar" Diesel Tractors, Motor Graders, Engines and Electric Sets are helping in the fight on hundreds of fronts. Everywhere they're saving men and the time and labor of men. They're breaking trails for troops, rescuing tanks, building and repairing military roads and landing fields, hauling big guns, powering searchlights and field telephones, clearing beach-heads, supplying main or stand-by power for Navy and Coast Guard craft.

The machines we make are on war duty. "Caterpillar" men will keep right on building them night and day, and "Caterpillar" dealers will keep right on servicing them so that they will deliver full power, for this one all-important purpose, until the big job is done.

CATERPILLAR *DIESEL*

REG. U.S. PAT. OFF.

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

TO WIN THE WAR: WORK—FIGHT—BUY U. S. WAR BONDS!

BE A
WASTE
WARDEN
Make this your pledge!
I WILL close cylinder valves after use.
I will check hose and connections for leaks.
I will keep tips clean and free from carbon and slag.
I will return empty cylinders, with their caps on, promptly.
I WON'T use excessive pressures.
I won't use oversize tips.
I won't leave torches burning when not in use.
I won't abuse cylinders.
I won't leave cylinder valves open when gas is not being used.
FIGHT WASTE TODAY
FOR VICTORY TOMORROW!

"FIGHT WASTE" POSTERS are playing a vital part in conserving essential materials — they are constant, practical reminders on "how to" make a little go a long way. » » Reproduced above is the latest of a series of 4-color posters Airco is making available. By observing their "do's" and "dont's" some railroad shops are saving as much as 25% in oxygen and acetylene consumption. » » These posters are available in any quantity on request to your nearest Airco office, or by writing to Mr. G. VanAlstyne, Air Reduction, 60 E. 42nd St., New York, N. Y.

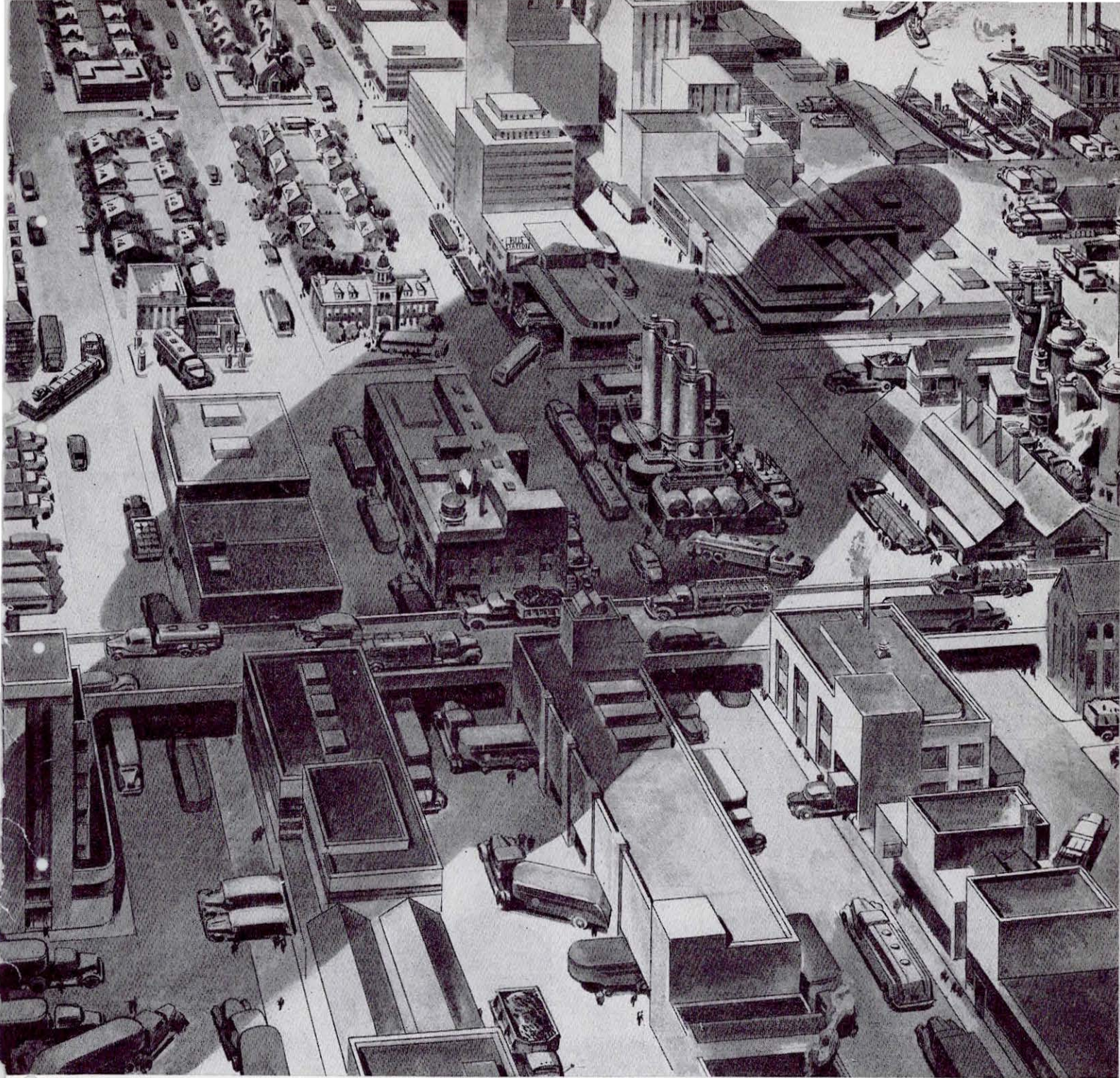
AIR REDUCTION

AIRCO

60 EAST 42nd STREET, NEW YORK, N. Y.

In Texas: Magnolia-Airco Gas Products Co.

IDLE CYLINDERS ARE PRODUCTION SLACKERS: KEEP 'EM ROLLING FOR VICTORY!



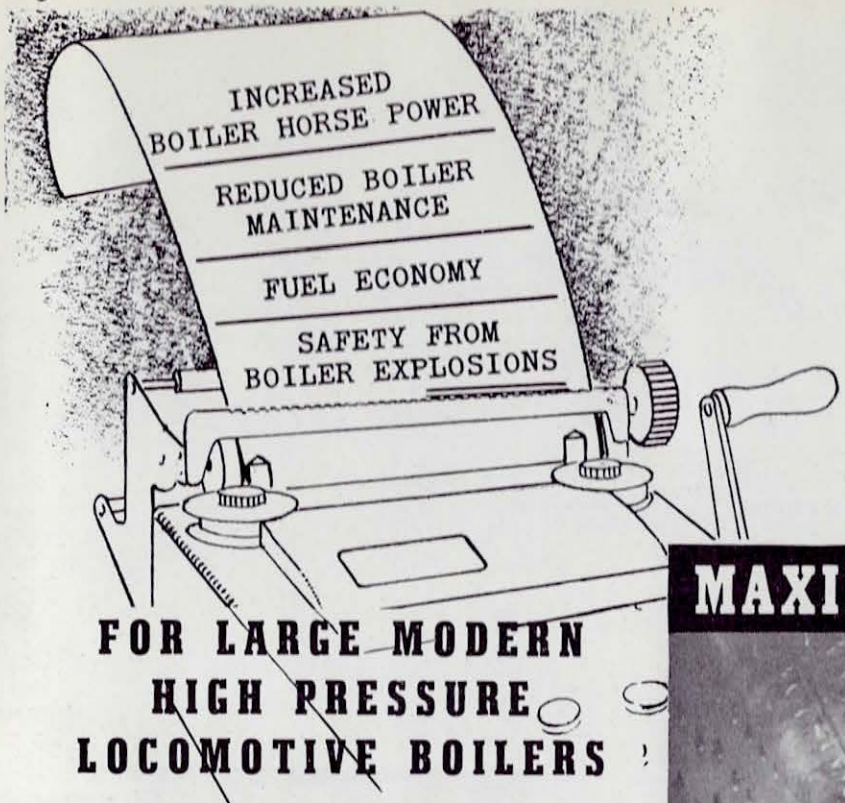
THE SHADOW OF A MAN YOU SHOULD KNOW

Guardian of the great American scheme of highway transportation, zealously interested in your safety and economy of operation is the shadow of a composite individual ★ Individually he's just like any of us. Collectively, however, he's a factor which truck and bus lines rely upon implicitly. And well they should, since the shadow in question is that of your authorized Bendix-Westinghouse Distributor ★ A keen personality, he is thoroughly schooled in those intricacies of your business which stamp him as a pillar in the industry ★ Now, more than ever before, he's at your service wherever highway transportation rolls . . . to see that it's kept rolling smoothly, safely and efficiently ★ Your local telephone directory lists his name and business address . . . It will pay you well to make his acquaintance today.

BENDIX-WESTINGHOUSE AUTOMOTIVE AIR BRAKE CO.

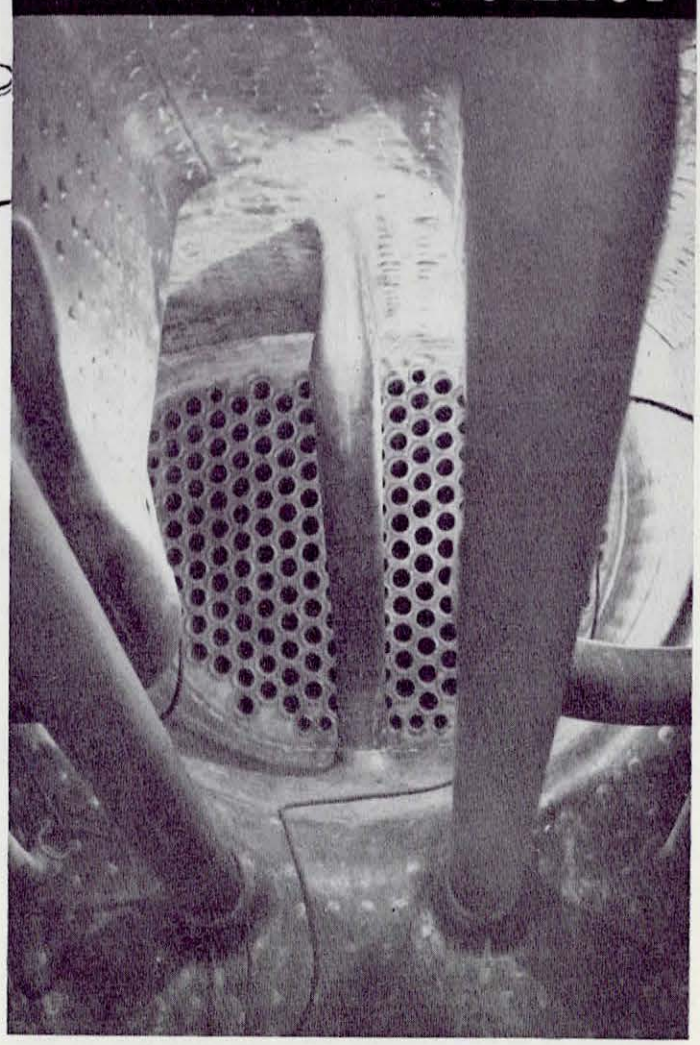
ELYRIA, OHIO

AN ORGANIZATION WHOSE UNDIVIDED EFFORT AND COMPLETE RESOURCES ARE DEVOTED TO YOUR CONVENIENCE AND SAFETY



ADD THEM TOGETHER AND THE RESULT IS

MAXIMUM EFFICIENCY



Typical installation of one Nicholson Syphon in combustion chamber and two Duplex Syphons in firebox.

FOR LARGE MODERN HIGH PRESSURE LOCOMOTIVE BOILERS

DUPLEX
NICHOLSON THERMIC
SYPHONS
ASSURE
Outstanding Performance

Duplex Syphons are designed for greater flexibility. They more readily absorb excessive expansion and contraction caused by pressure and temperature changes, which are especially severe in large fireboxes and high pressure boilers. They increase circulation of water in the boiler with more vigorous effect in the side legs of the firebox.

Low Syphon maintenance, substantial brick arch support, increased boiler capacity, fuel economy, reduced boiler maintenance and positive safety from boiler explosions due to low water result from the use of **DUPLEX NICHOLSON THERMIC SYPHONS.**

Locomotive Firebox Company

NEW YORK CHICAGO MONTREAL

Baldwin serves the Nation which the Railroads helped to build

Baldwin Diesel-Electrics

FAST-EFFICIENT-ECONOMICAL

The St. Louis-San Francisco Railway not only links major industrial gateways in the Middle West, Southwest and Southeast, but also serves dozens of our military bases.

Baldwin diesel-electric switching locomotives are helping the Frisco speed this vital service to our armed forces and to the industries producing military supplies. These rugged locomotives, designed and built by specialists in railroad motive power, are handling cars through yards and terminals with speed and efficiency. Baldwin steam locomotives are helping to keep great tonnage trains rolling over the main line.

Baldwin 1000 hp. and 660 hp. diesel-electric switching locomotives are powered with Baldwin-built De La Vergne diesel engines and Westinghouse electrical transmission equipment. Rapid acceleration and a high degree of visibility from the cab mean fast safe switching. Expert engineering and modern construction methods insure satisfaction in service and economy of operation.

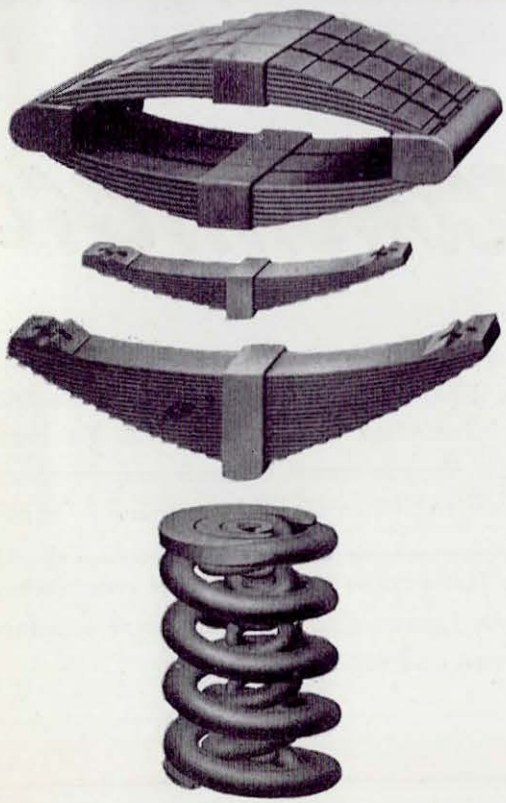
THE BALDWIN LOCOMOTIVE WORKS

PHILADELPHIA

BLW THE BALDWIN GROUP

Baldwin also serves the Nation through the manufacture of tanks, guns, ship parts, and many of the machines used by other industries engaged in war production.

"Railway" Springs



on DIESEL POWER

MODERN Diesel locomotives operating in high speed passenger and freight service require quality springs to protect their mechanism and the track structure from undue shock and vibration. "Railway" Steel Spring Division has all the facilities, metallurgical research, heat treating and manufacturing, combined to produce the right springs for your unusual service.

AMERICAN LOCOMOTIVE COMPANY

Railway Steel Spring Division

30 CHURCH STREET, NEW YORK, N. Y.

TO EXECUTIVES:

NOW YOU CAN HELP

Even more...

New Treasury Ruling Permits Purchases UP TO $100,000, in any Calendar Year, of Series F and G WAR BONDS!

The Treasury's decision to increase the limitations on the F and G Bonds resulted from numerous requests by purchasers who asked the opportunity to put more money into the war program.

This is not a new Bond issue and not a new series of War Bonds. Thousands of individuals, corporations, labor unions, and other organizations have this year already purchased $50,000 of Series F and G Bonds, the old limit. Under the new regulations, however, these Bond holders will be permitted to make additional purchases of $50,000 in the remaining months of the year. The new limitation on holdings of $100,000 in any one calendar year in either Series F or G, or in both series combined, is on the cost price, not on the maturity value.

Series F and G Bonds are intended primarily for larger investors and may be registered in the names of fiduciaries, corporations, labor unions and other groups, as well as in the names of individuals.

The Series F Bond is a 12-year appreciation Bond, issued on a discount basis at 74 percent of maturity value. If held to maturity, 12 years from the date of issue, the Bond draws interest equivalent to 2.53 percent a year; computed on the purchase price, compounded semiannually.

The Series G Bond is a 12-year current income Bond issued at par, and draws interest of 2.5 percent a year, paid semiannually by Treasury check.

Don't delay—your "fighting dollars" are needed *now.* Your bank or post office has full details.

Save With . . .

War Savings Bonds

This space is a contribution to America's All-Out War Program by RAILWAY AGE

Valuable Books for Your Library

Ready August 15th

The Steam Locomotive

By R. P. JOHNSON

Chief Engineer, The Baldwin Locomotive Works

Theory, operation and economics of the steam locomotive, in the light of recent research and current practice. Comparisons are made with the Diesel locomotive. Just enough historical background is given to indicate paths of development. This book will be of interest to locomotive designers, mechanical engineers, superintendents of motive power, locomotive shop superintendents, master mechanics and motive power officials.

550 pages, 87 illustrations, tables, 6 x 9, cloth, $3.50

Railroad Electrification and the Electric Locomotive

By ARTHUR J. MANSON

Manager, Transportation Sales Department, Westinghouse Electric & Manufacturing Company

Written primarily for railway officials and operating men who desire a general knowledge of the design, construction, and operation of electric locomotives and of their application to different kinds of railroad service. Typical problems encountered in electrification of steam railroads are outlined, together with their solutions. Fundamental principles are stressed, and the book is illustrated with photographs, detail drawings, diagrams and charts.

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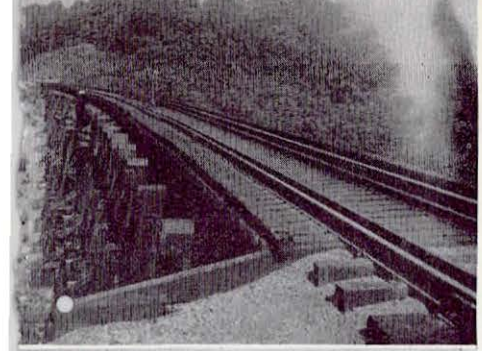

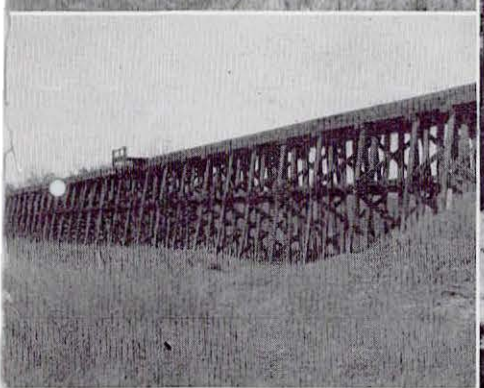

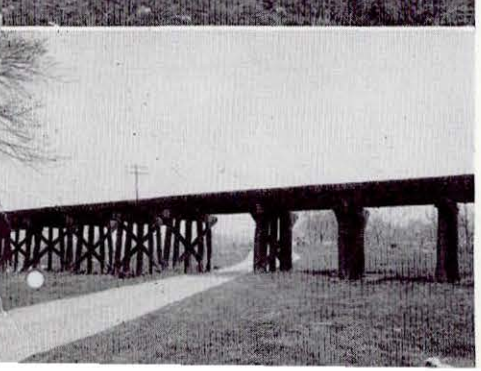

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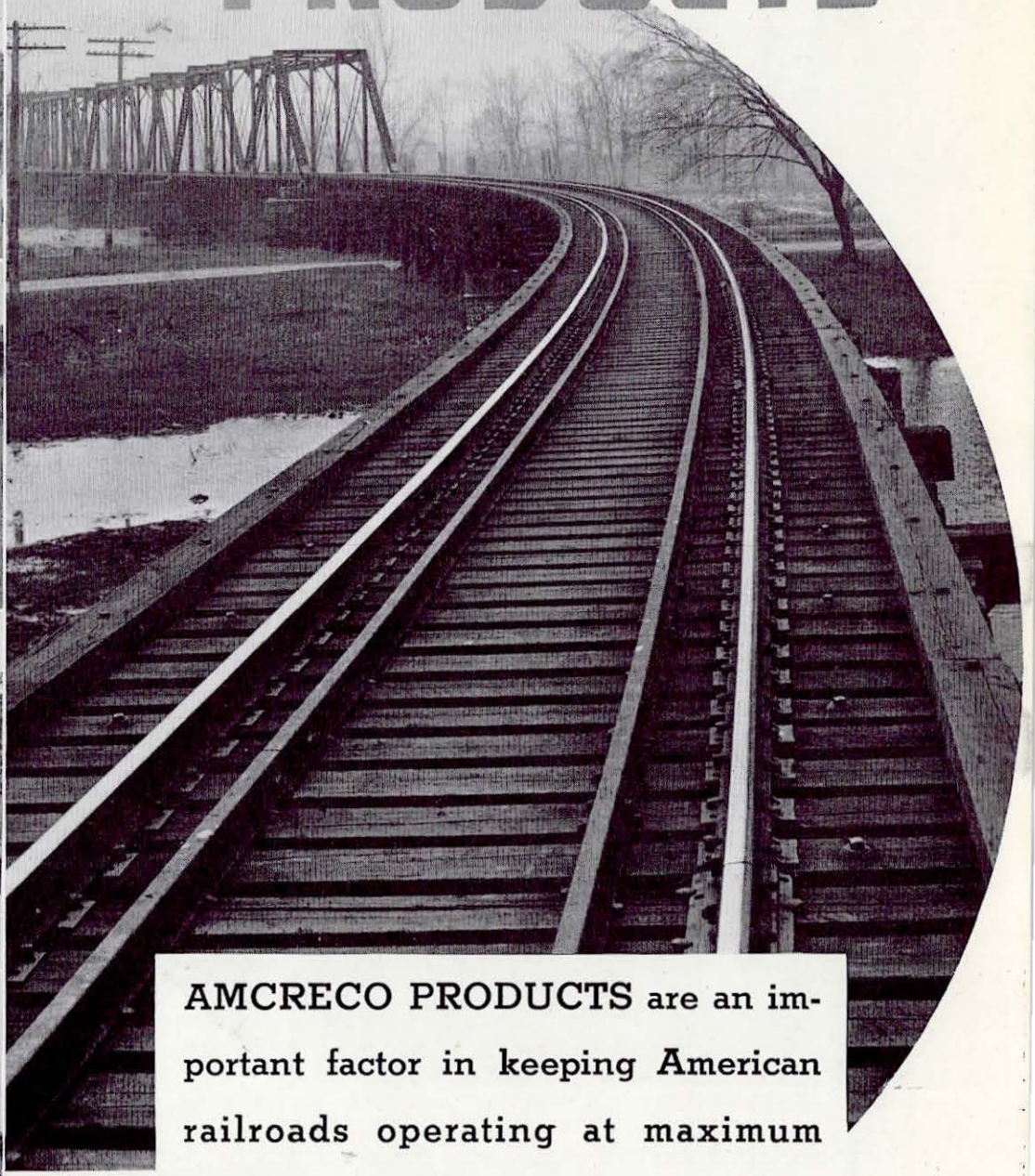

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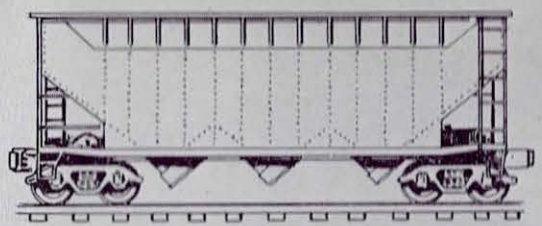

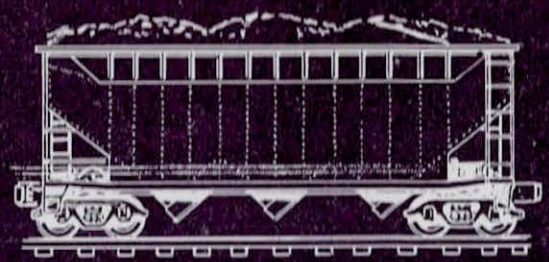

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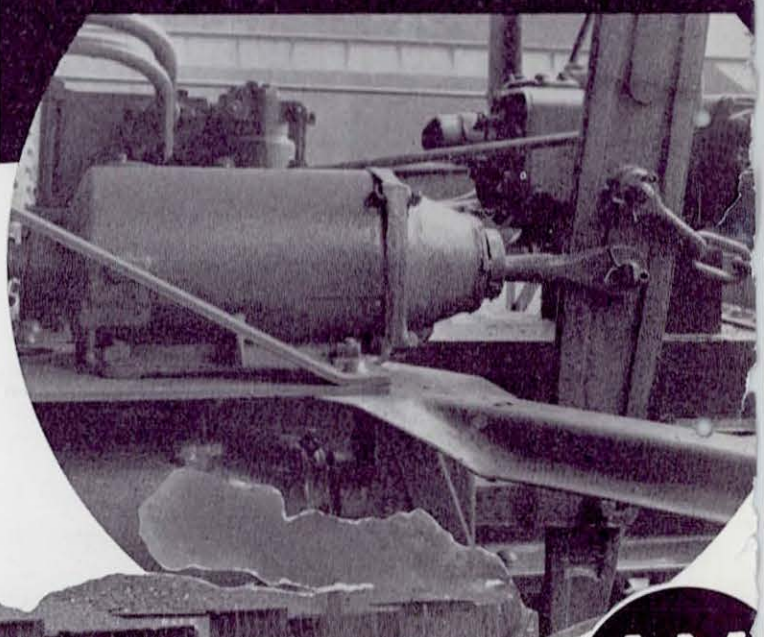

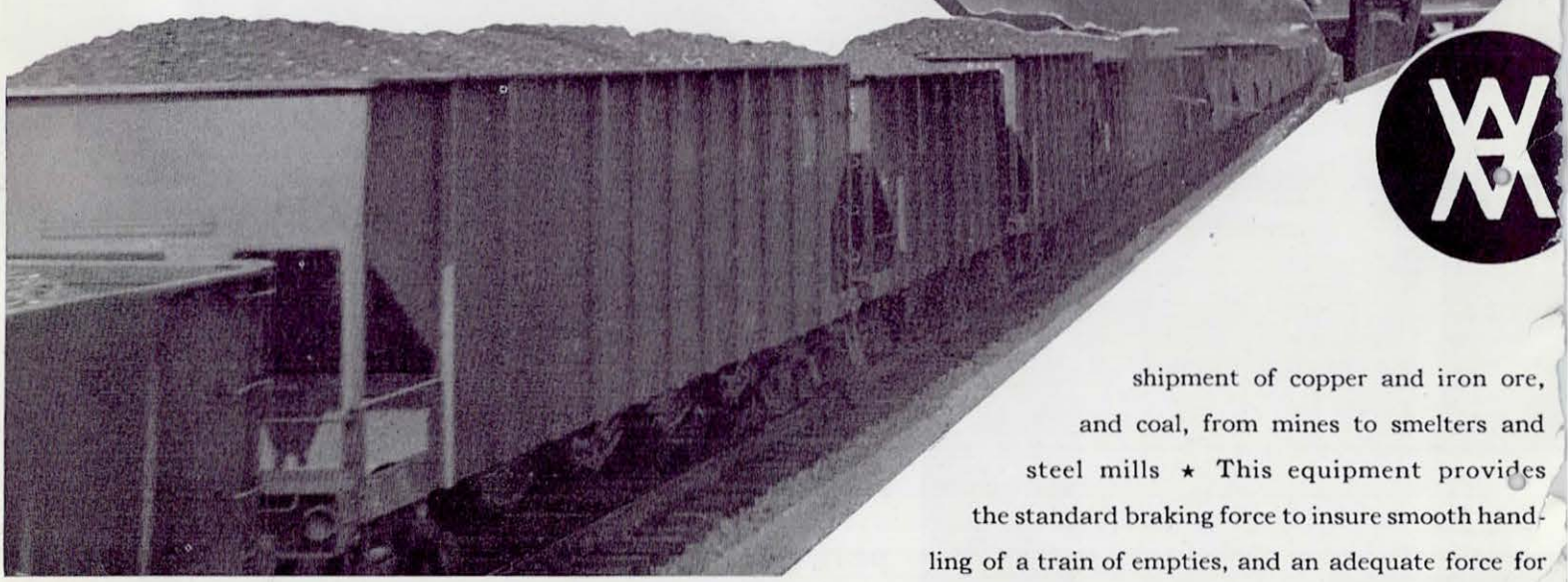

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The Diesel-Electric Locomotive and Smoke Prevention ***139***

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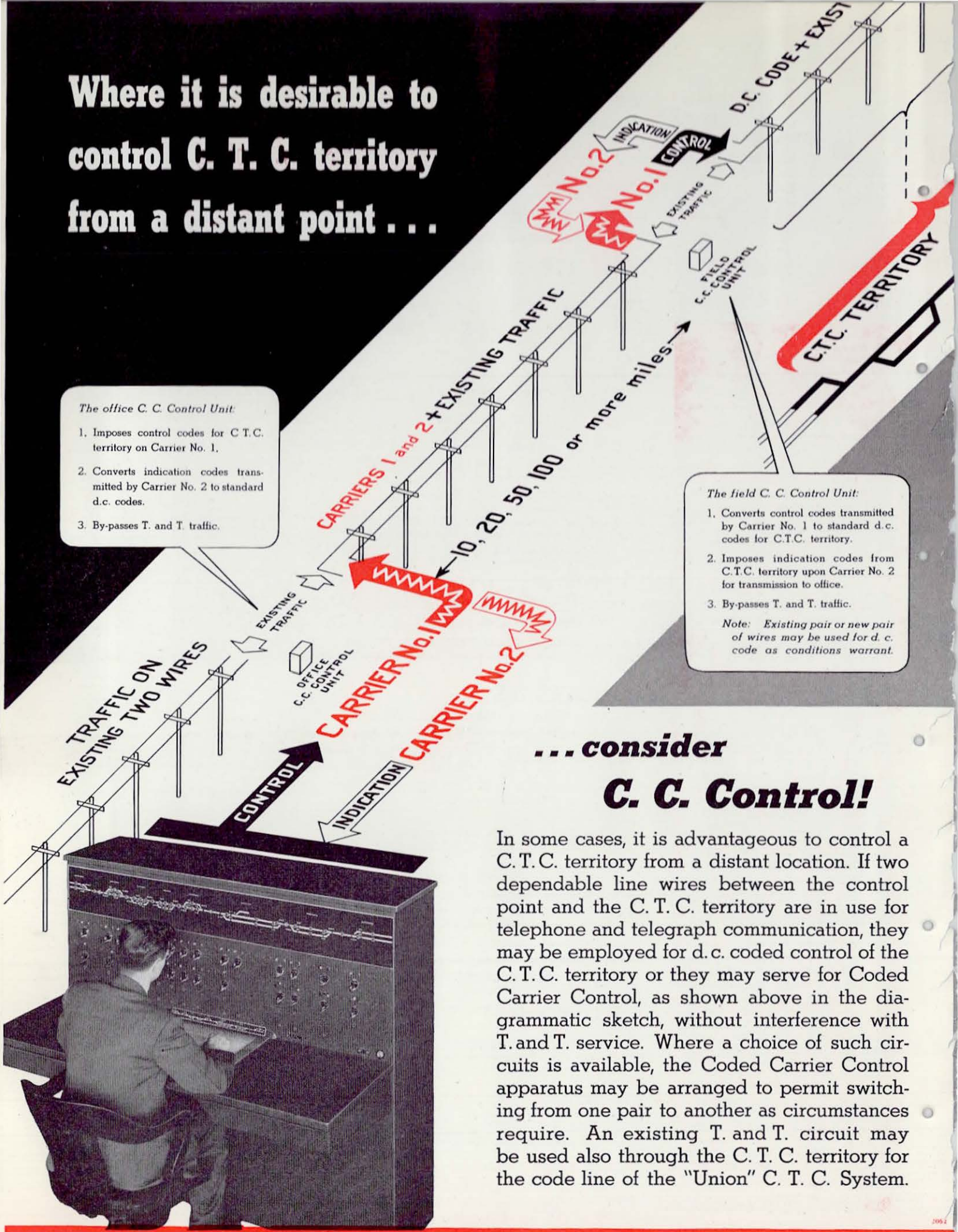
Where it is desirable to control C. T. C. territory from a distant point . . .



The office C. C. Control Unit:

1. Imposes control codes for C T.C. territory on Carrier No. 1.
2. Converts indication codes transmitted by Carrier No. 2 to standard d.c. codes.
3. By-passes T. and T. traffic.

The field C. C. Control Unit:

1. Converts control codes transmitted by Carrier No. 1 to standard d.c. codes for C.T.C. territory.
2. Imposes indication codes from C.T.C. territory upon Carrier No. 2 for transmission to office.
3. By-passes T. and T. traffic.

Note: Existing pair or new pair of wires may be used for d. c. code as conditions warrant.

. . . consider C. C. Control!

In some cases, it is advantageous to control a C.T.C. territory from a distant location. If two dependable line wires between the control point and the C. T. C. territory are in use for telephone and telegraph communication, they may be employed for d.c. coded control of the C.T.C. territory or they may serve for Coded Carrier Control, as shown above in the diagrammatic sketch, without interference with T. and T. service. Where a choice of such circuits is available, the Coded Carrier Control apparatus may be arranged to permit switching from one pair to another as circumstances require. An existing T. and T. circuit may be used also through the C. T. C. territory for the code line of the "Union" C. T. C. System.

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The Week at a Glance

PRAISE FROM THE I. C. C.: Commissioner J. Monroe Johnson is becoming one of the most eloquent of witnesses to railroad proficiency. His official duties have given him an intimate perception of what the carriers are accomplishing, and he has been magnanimous enough to give voice to opinions to which modesty would deny expression by railroaders. In a radio broadcast, reported in our news pages, Colonel Johnson has characterized railroad performance since Pearl Harbor as "unequalled in transportation and other human achievements."

●

80,000 MORE CARS?: The railroads have compiled and interpreted detailed information on traffic prospects—matched against their equipment situation—and have reached the conclusion that another car-construction program is needed, to provide 80,000 more freight cars. These railroad estimates have gone to the ODT which, in turn, will have to pass upon them and refer them to WPB. There, of course, what may happen to them must be a matter of conjecture.

●

STATION DELAYS: It is hard to keep passenger trains on time these days—because of the unusual amount of station work to be done. Extraordinary efficiency is needed to match extraordinary conditions. A canvass of the spots which need watching to minimize delays in working trains at stations is published herein—with a survey of the expedients which may be used to get the customers and the head-end load off and on, as quickly as circumstances admit.

●

TRANSPORT IN BRITAIN: The British railways are, theoretically, being operated by the government as a war-time measure—but an article elsewhere in these pages points out that this effect has been secured, not by putting political authorities in charge of them but by making railway managers themselves officers of the government. Operating as the British railways do in what amounts virtually to a combat zone, a considerable measure of authoritarian control is probably inevitable—at least it is needed to a degree which would not be required except for the nightly depredations of the *Luftwaffe*. At that, the methods used by the British railways to operate as a unit in attaining maximum effective use of equipment do not appear to differ materially in principle from those achieved in this country by voluntary co-operation.

●

TEMPORARY BRIDGES: An innovation in the design of falsework bents has been developed by the Pennsylvania and is described herein—a method which offers advantages in the construction of temporary bridges to carry traffic while permanent structures are under construction.

●

WHY ODT STAFF IS BIG: The ODT has been criticized in some quarters for the magnitude of the staff it has been accumulating. One who knows the circumstances of government employment policy suggests that the critics should consider the requirement that clerical and other routine positions must be filled from the civil service rolls—not necessarily the most efficient help there is. With a large and expanding volume of work to be done and a severe limitation on those who can be hired to do it, our informant believes the ODT may have been forced to "make up in quantity for what it cannot attain in quality."

●

WAGES BEAT LIVING COSTS: In the first third of 1942 the average railroad employee earned $44 weekly—16 per cent more than in the same 1941 period. The cost of living, meantime, went up 10 per cent—leaving the railroad employee still considerably better off than he was a year ago. Including payroll taxes (which is money the railroads pay for ultimate receipt by their employees), the average railroader drew $46.63 per week and almost 91 cents an hour in the first third of 1942—which was 38 per cent more per week and 35 per cent more per hour than was received in 1929, *when the cost of living was higher* than it was the early part of the current year. These and other significant comparisons revelatory of the well-being of employees are set forth in an editorial herein.

●

TIME TO POST-WAR PLAN: Business is brisk now because the war, to which price is no object, provides a boundless market. But how can business be equally brisk under peace-time conditions? An editorial herein contends that a lively market in peace, and with private enterprise, can be attained only by offering prices which will attract customers. One of the reasons that full recovery did not come in the '30's was that artificial steps prevented prices from falling as they did following '21, when recovery was rapid. The only kind of "planning" which will work for *private enterprise* is that which makes for *free prices.* Monopoly pricing tends to induce unemployment by private industry, and hence invites government intervention—and, eventually, socialism.

●

BOARD GETS HALF-MILLION: The Transport Study Board has got a $500,000 appropriation, plus the right to spend what was left of its previous allotment of funds—a total of $643,000. Congress, however, insists that, with this money, it must finish all the investigations it has been called on to make. Our Washington editor, in reporting this development in this issue's news pages, suggests that some of the senators most interested in this board's work seem not to know of the large assignment the law gives to it. All they have in mind is the inquiry into interterritorial freight rates (which isn't a part of the board's statutory duty at all). Since the senators already know so well what the outcome of that inquiry should be, they may find it difficult to comprehend why the board needs more than a short period to terminate its work by stating, in scholarly language, what is self-evident.

CLOSE TO 800 M BBL.: In the July 11 week the railroads hauled just slightly less than 789,000 bbl. of petroleum products daily to the gas-rationed Eastern Seaboard.

●

SAVING CO. FREIGHT CARS: Economizing on cars used to handle company material can make an important addition to the supply of freight cars. Measures which company-material shippers and receivers should take to use cars more efficiently have been outlined in a circular by A. A. R. Vice-President Buford, as is reported in this issue's news pages. High on the list of recommended practices are direct routing, capacity loading, consolidated shipments, use of trucks for short hauls (including the hiring of local truckers where necessary), prompt unloading.

●

RAIL BEING OVERWORKED?: In the ten years 1922-31 the railroads applied 1.55 tons of new rail in their track structure for each million gross ton-miles the track carried. In the next decade (1932-41), the application of new rail was 0.79 tons per million gross ton-miles—just about half as much. The leading editorial herein suggests that the increasing frequency of transverse fissures indicates that rail is being overworked; and that the carriers need more rail than they are getting, and need it as a war measure.

●

WARNING TO UNIONS: Mr. Eastman in an address to a meeting of the clerks' brotherhood last week, urged the railway unions to oppose the development of "tyranny" and "buccaneering" in the field of organized labor. He absolved the railway organizations of such practices, but he said they existed elsewhere in the labor movement and that railway labor would do well to combat them. At the same meeting, Otto Beyer of the ODT counseled the unions not to concern themselves about union status; that is firmly established—but, instead, to concentrate on increasing efficiency, in order to win the war and preserve democratic institutions, which are necessary for union existence.

●

ANTI-TRUST FERVOR: Thurman Arnold, anti-trust prosecutor, has made an extraordinarily bitter and comprehensive attack on the Transportation Act of 1920 in a speech which is reviewed in the news pages herein. He all but blames the present war upon it. His argument is that the Act "guaranteed" the railroads a high return on "inflated" investment. This, in turn, brought high rates (according to him) and induced industrial concentration on the seaboards where competitive transportation was available. The seaboards are more vulnerable to enemy attack than the interior and, this (he appears to imply), may have made the enemy less reluctant to attack us than he otherwise might have been. Mr. Arnold, in his crusade against monopolies draws no distinction between those which are natural and publicly-advantageous (and so regulated)—and those which, on the other hand, are purely predatory.

Q. A.

In what way do Barber Stabilized Trucks differ from ordinary snubber equipped trucks?

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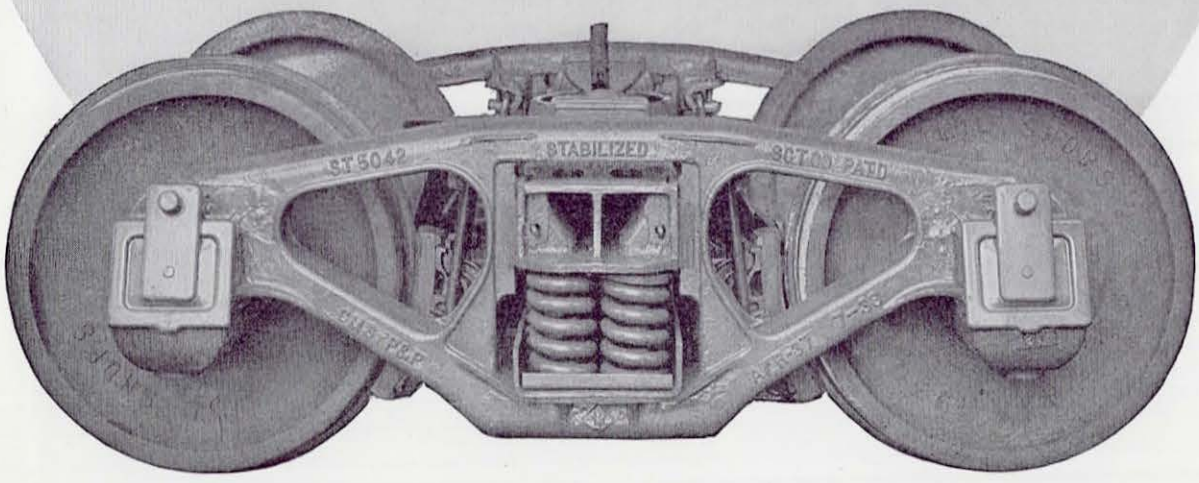

In Barber Stabilized Trucks, the wear which usually takes place between the bolsters and columns has actually been put to work breaking up the bouncing action of the springs.

Barber Stabilized Trucks are essential in this day of super-speed freight car movement, because:

1. They effectively control destructive harmonic bouncing;
2. Practically eliminate spring breakage, bolster and column wear;
3. Materially reduce damage to ladings;
4. Reduce car maintenance expense.

Specify Barber Stabilized Trucks and Keep Shippers Satisfied

STANDARD CAR TRUCK COMPANY
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Efficiency FOR VICTORY

Rail—A Growing Problem

When so much attention is being given, and not without justification, to the adequacy of the supply of cars and locomotives, it is equally important that proportionate attention be given to the maintenance of the structure which carries these cars and locomotives. For it has long been recognized that a railway is no better than its track. And in track the most critical unit is the rail.

To date the track structure has given a most creditable account of itself. It has carried the heaviest traffic ever handled with a dependability never before attained. But every locomotive and car that passes over a track takes a part of its service life which must be replaced if disaster is to be avoided. And here a situation is developing that warrants most careful consideration. It is indicated by the accompanying comparison of the gross tons of new rail laid in replacements per million gross ton-miles of freight handled (including locomotives and tenders) during the last two 10-year periods (1922-1931 and 1932-1941, respectively). As these figures show, the railways laid 1.55 tons of new rail in replacement per million gross ton-miles in the 10-year period from 1922 to 1931, inclusive, and only 0.79 tons per million gross ton-miles in the last ten years. And in 1942 the ratio will be still lower.

Year	Gross Tons* of New Rail Replacements	Millions of Gross Ton-Miles of Freight Including Locomotive and Tender	Tons of New Rail Per Million Gross Ton-Mi.	Year	Gross Tons* of New Rail Replacements	Millions of Gross Ton-Miles of Freight Including Locomotive and Tender	Tons of New Rail Per Million Gross Ton-Mi.
1922	1,390,290	929,025	1.50	1932	394,536	758,011	0.52
1923	1,729,696	1,123,970	1.54	1933	403,254	788,624	0.51
1924	1,791,162	1,085,860	1.65	1934	631,093	855,594	0.74
1925	1,950,146	1,162,154	1.68	1935	582,794	882,661	0.66
1926	2,209,873	1,246,532	1.77	1936	921,298	1,029,253	0.90
1927	2,124,765	1,232,232	1.72	1937	1,029,861	1,084,643	0.95
1928	2,080,277	1,251,687	1.66	1938	599,752	912,233	0.66
1929	1,958,489	1,294,412	1.51	1939	878,643	1,018,352	0.86
1930	1,517,002	1,142,943	1.33	1940	998,914	1,118,512	0.89
1931	984,900	959,539	1.03	1941	1,159,000†	1,194,608	0.97
Average	1,773,660	1,142,835	1.55	Average	759,914	964,249	0.79

* Tons of 2,240 lb.
† From unofficial reports.

This is cause for serious concern. One evidence is the steadily rising number of transverse fissures found in recent years until it reached a new high last year. Fortunately, the development and constant improvement of the transverse fissure detector car have enabled the railways to discover and remove many defective rails before failures have occurred, although a large number of failures continue to develop in service. On some roads the failure rate has increased so rapidly that detector cars are now being operated at intervals as frequent as 60 days.

These developments support the insistence of the railways for the rolling of a tonnage of rails commensurate with the wear and tear now occurring. Rail warrants more consideration from those in authority than it has been given to date—and warrants it as a war measure.

The Post-War Economy—Competition or Socialism?

It is not too early for planning the post-war economy. And the planners may well consider one important contrast between what occurred following 1920 and 1929. Prices of commodities declined 37 per cent in 1921; business immediately improved, and recovery was soon complete. Prices declined only 9 per cent in 1930; had declined only 24 per cent in 1931, and 32 per cent in 1932; not until toward the end of 1932 did business begin recovering; and, after (in 1933) government and industry began artificially bolstering up prices, recovery stopped for two years, never to be completed.

Industry and government had not learned much about controlling prices in 1920-1921. Industry later, by monopolistic practices, learned much more; and it took prices three years to decline less after 1929 than in 1921 alone. Business suffered heavy losses in 1921—but a mere bagatelle compared with its losses in 1930-'32, and in subsequent years of New Deal-business price-raising.

The success of war economies in providing employment and production is cited as evidence of what a peace-time economy should accomplish. But the *important* cause of this is that government *purchases for war* provide a huge *market*. Provide a peace-time economy with an equal market, and it will provide equal employment and production.

But how provide an equal peace-time market? Government planners, seeing this is the *real* problem, plan for huge government peace-time expenditures. Do business planners see with equal clarity that the *real* post-war problem will be one of *markets?* And are business planners squarely facing what private enterprise must do to develop large enough markets to prove lack of necessity for vast *competing* government enterprise?

The question of *markets* inevitably raises the question of *prices* and *rates*. For markets are the places where commodities and services are traded. Upon the *relations* between their prices and rates depends the volume of them traded and the size of markets. And the size of markets determines the possible volume of production, transportation and employment.

Business ignores these plain economic *facts* when it uses monopolistic practices to control prices. For always then some prices are more effectively controlled than others, and resulting maladjustments in them prevent maximum practicable trade, markets, production, and employment.

Are those advocating restoration of *free* private enterprise prepared to face the economic music, and give rein to the free *competition* in prices as well as otherwise, that is the essence of *free* private enterprise? Or will they prefer—as in 1930-1931-1932—trying to maintain their prices regardless of other people's prices, and thus *inevitably* invite government control of private business, and government expenditure in *competition* with it on a huge scale—in brief, a *socialist* economy?

It will be a hard choice for many. But a mass sentiment already socialistic will force them to make it. How about *labor* monopoly and wages? Plainly a monopoly economy as to wages is incompatible with a competitive economy as to prices. But business more than labor is on the spot; it is business that is now in competition with government in planning; and unless business voluntarily plans and promotes a sound and saleable *private enterprise* post-war economy it will have forced upon it a largely or entirely *socialistic* post-war economy.

The War-Time Opportunity Of Railway Manufacturers

The railways need right now all the assistance anybody can give them. They need it for one definite purpose—to help them carry an unprecedented traffic while using the *least* labor, equipment, fuel and materials practicable. They are confronted with an entirely new situation—(1) unprecedented demands for service, and simultaneously (2) inability to get the equipment, devices and materials they need and could pay for. If they cannot meet all demands, the results will be serious. Railway management might be blamed even if not in any way at fault; government operation might result.

Most shippers, realizing this, are doing all they can to promote super-efficient use of equipment. The *Railway Age* and other railway publications of the Simmons-Boardman Publishing Corporation have dedicated their editorial pages "for the duration" to promoting all the specialized kinds of railway efficiency required. There is an important group of business interests, manufacturers of railway equipment and supplies, that, above all others, should give the railways every possible aid.

All such manufacturers usually get much, many of them all, of their business from the railways. Their ordinary function is to improve and sell to the railways all the equipment, devices and materials they can. They have a different and broader function now—not only to produce and sell to the railways all that available materials permit, but to help the railways accomplish the utmost they can with what they have.

Manufacturers can help by putting their service staffs more than ever at the disposal of the railways. They can help by urgently applying pressure in Washington for materials they need in order to supply the railways. They can help by using advertising to tell the railways not only what they have to sell, but how to get the best results from what already has been sold them. Our advertising pages show many manufacturers already are doing this—also, that *most* manufacturers that get business from the railways are not doing it.

Efficiency FOR VICTORY

Rail—A Growing Problem

When so much attention is being given, and not without justification, to the adequacy of the supply of cars and locomotives, it is equally important that proportionate attention be given to the maintenance of the structure which carries these cars and locomotives. For it has long been recognized that a railway is no better than its track. And in track the most critical unit is the rail.

To date the track structure has given a most creditable account of itself. It has carried the heaviest traffic ever handled with a dependability never before attained. But every locomotive and car that passes over a track takes a part of its service life which must be replaced if disaster is to be avoided. And here a situation is developing that warrants most careful consideration. It is indicated by the accompanying comparison of the gross tons of new rail laid in replacements per million gross ton-miles of freight handled (including locomotives and tenders) during the last two 10-year periods (1922-1931 and 1932-1941, respectively). As these figures show, the railways laid 1.55 tons of new rail in replacement per million gross ton-miles in the 10-year period from 1922 to 1931, inclusive, and only 0.79 tons per million gross ton-miles in the last ten years. And in 1942 the ratio will be still lower.

Year	Gross Tons* of New Rail Replacements	Millions of Gross Ton-Miles of Freight Including Locomotive and Tender	Tons of New Rail Per Million Gross Ton-Mi.	Year	Gross Tons* of New Rail Replacements	Millions of Gross Ton-Miles of Freight Including Locomotive and Tender	Tons of New Rail Per Million Gross Ton-Mi.
1922	1,390,290	929,025	1.50	1932	394,536	758,011	0.52
1923	1,729,696	1,123,970	1.54	1933	403,254	788,624	0.51
1924	1,791,162	1,085,860	1.65	1934	631,093	855,594	0.74
1925	1,950,146	1,162,154	1.68	1935	582,794	882,661	0.66
1926	2,209,873	1,246,532	1.77	1936	921,298	1,029,253	0.90
1927	2,124,765	1,232,232	1.72	1937	1,029,861	1,084,643	0.95
1928	2,080,277	1,251,687	1.66	1938	599,752	912,233	0.66
1929	1,958,489	1,294,412	1.51	1939	878,643	1,018,352	0.86
1930	1,517,002	1,142,943	1.33	1940	998,914	1,118,512	0.89
1931	984,900	959,539	1.03	1941	1,159,000†	1,194,608	0.97
Average	1,773,660	1,142,835	1.55	Average	759,914	964,249	0.79

* Tons of 2,240 lb.
† From unofficial reports.

This is cause for serious concern. One evidence is the steadily rising number of transverse fissures found in recent years until it reached a new high last year. Fortunately, the development and constant improvement of the transverse fissure detector car have enabled the railways to discover and remove many defective rails before failures have occurred, although a large number of failures continue to develop in service. On some roads the failure rate has increased so rapidly that detector cars are now being operated at intervals as frequent as 60 days.

These developments support the insistence of the railways for the rolling of a tonnage of rails commensurate with the wear and tear now occurring. Rail warrants more consideration from those in authority than it has been given to date—and warrants it as a war measure.

The Post-War Economy—Competition or Socialism?

It is not too early for planning the post-war economy. And the planners may well consider one important contrast between what occurred following 1920 and 1929. Prices of commodities declined 37 per cent in 1921; business immediately improved, and recovery was soon complete. Prices declined only 9 per cent in 1930; had declined only 24 per cent in 1931, and 32 per cent in 1932; not until toward the end of 1932 did business begin recovering; and, after (in 1933) government and industry began artificially bolstering up prices, recovery stopped for two years, never to be completed.

Industry and government had not learned much about controlling prices in 1920-1921. Industry later, by monopolistic practices, learned much more; and it took prices three years to decline less after 1929 than in 1921 alone. Business suffered heavy losses in 1921—but a mere bagatelle compared with its losses in 1930-'32, and in subsequent years of New Deal-business price-raising.

The success of war economies in providing employment and production is cited as evidence of what a peace-time economy should accomplish. But the *important* cause of this is that government *purchases for war* provide a huge *market*. Provide a peace-time economy with an equal market, and it will provide equal employment and production.

But how provide an equal peace-time market? Government planners, seeing this is the *real* problem, plan for huge government peace-time expenditures. Do business planners see with equal clarity that the *real* post-war problem will be one of *markets?* And are business planners squarely facing what private enterprise must do to develop large enough markets to prove lack of necessity for vast *competing* government enterprise?

The question of *markets* inevitably raises the question of *prices* and *rates*. For markets are the places where commodities and services are traded. Upon the *relations* between their prices and rates depends the volume of them traded and the size of markets. And the size of markets determines the possible volume of production, transportation and employment.

Business ignores these plain economic *facts* when it uses monopolistic practices to control prices. For always then some prices are more effectively controlled than others, and resulting maladjustments in them prevent maximum practicable trade, markets, production, and employment.

Are those advocating restoration of *free* private enterprise prepared to face the economic music, and give rein to the free *competition* in prices as well as otherwise, that is the essence of *free* private enterprise? Or will they prefer—as in 1930-1931-1932—trying to maintain their prices regardless of other people's prices, and thus *inevitably* invite government control of private business, and government expenditure in *competition* with it on a huge scale—in brief, a *socialist* economy?

It will be a hard choice for many. But a mass sentiment already socialistic will force them to make it. How about *labor* monopoly and wages? Plainly a monopoly economy as to wages is incompatible with a competitive economy as to prices. But business more than labor is on the spot; it is business that is now in competition with government in planning; and unless business voluntarily plans and promotes a sound and saleable *private enterprise* post-war economy it will have forced upon it a largely or entirely *socialistic* post-war economy.

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For the duration selling and advertising have largely become showing the customer *how to get along without buying*. Automobile and tire companies are spending millions on advertising and free service to educate motorists in how best to get along without buying, knowing this will prove good business after the war. Other less sales-minded manufacturers can profit by their example.

Gone for the duration are the days when the club of "traffic" could be best used to "sell" the railways; they have enough traffic, may soon have too much. Gone are the days when the best entertainer was the best salesman, if he ever was; he may be less valuable now than the best service man. Gone are the days when it paid to make agreements to restrict advertising; customers now need information such as only good advertising can furnish.

Manufacturers want to continue doing business with an efficient and privately-managed railway industry; and now is their best opportunity to help it—and also themselves. Only those will fully avail themselves of the opportunity who supplement their usual development, production and sales efforts with everything they can do to help the railways get along as well as possible with as little as possible.

The Large Increases in Employment and Wages

The average weekly wage of all railway employees in the first third of 1942 was $44.03, an increase of 16.1 per cent over the first third of 1941. The average hourly wage was 86 cents, an increase of 13 per cent—the difference in the percentage increases being due, of course, to an increase in average hours worked per employee in 1942. Within the last year the cost of living has increased about 10 per cent.

The average weekly wage in the first third of 1929 was $33.81 and the average hourly wage 67 cents, the increase per week in 1942 over 1929 being 30.2 per cent and per hour 28.4 per cent. An additional factor that must be considered in connection with wages is the payroll tax not levied in 1929, but levied since 1937 solely to provide pensions for employees. In the first third of 1942 it averaged $2.60 per week and 37.1 cents per day per employee. Added to average weekly and daily wages, it, in effect, made average compensation in the first third of 1942 $46.63 per week and 90.6 cents per hour—an increase over the first third of 1929 of 38 per cent per week and of 35 per cent per hour.

Cost of living in June was still 2.8 per cent less than in 1929. Therefore, measured by the cost of living, the average weekly railway wage, exclusive of payroll taxes, in the first third of 1942 was 31.0 per cent higher than in 1929, and, including the payroll tax, almost 42 per cent higher; while the average hourly wage, exclusive of payroll taxes, was 29 per cent higher, and, including the payroll tax, about 36 per cent higher.

The average number of employees in the first third of 1929 was 1,599,919; in 1941, 1,045,506; and in 1942, 1,191,862. Total compensation in the first third of 1929 was $927 million; in 1941, $679 million; and in 1942, $900 million. Thus, while the number of employees in the first third of 1942 was 25.5 per cent less than in 1929, the total payroll was only 3 per cent less, and with $53 million added for payroll taxes was actually larger. While the number of employees increased 14 per cent in the first third of 1942 over 1941, the total payroll increased 32.4 per cent; and with an increase of almost $13 million in payroll taxes, it increased 32 per cent.

Now, Locomotives Are Getting Their Chance

That the steam locomotive has been a victim of its own history is becoming clearer with every passing month. Judged by statistical indices, the reserve supply of freight motive power was at a very low point last October. The miles per freight locomotive on line averaged above 2,800—more than 550 miles above the highest preceding October.

Since then, the intensity of utilization has been increasing. During October, an average of over 100 miles per day per freight locomotive on line was reported by 20 of the railroads listed in the Operating Statistics of Large Steam Railroads. The highest average reported was 151.5. This performance has been exceeded during each month since January. During February, 21 of the large railroads average daily mileages in excess of 100; during March, the number had increased to 24, and in April, to 27. The highest mileage reported in April was 171.9 per day.

Is not the mileage accepted as indicative of high utilization more a reflection of the inheritance of a large locomotive inventory than it is of the capacity of the locomotive? In two tests to determine locomotive capacity for continuous service made in 1929 and 1930 on the Frisco freight locomotives were kept under steam continuously, in one case for 25 days and in the other between 30-day inspections. In 1926 a Northern Pacific freight locomotive was in service for 109 hr. 30 min. without being uncoupled from its train.

The mileages of the two Frisco locomotives were not, in themselves, an indication of the capacity of the locomotives; they suggest an availability very much higher than their utilization.

The difficulty with which the steam locomotive acquires the opportunity to demonstrate its capacity for service will be readily understood by those who have struggled to keep the number of their active locomotives down to the minimum really needed for im-

mediate use. With a liberal inventory, it is always a temptation to keep more locomotives on the active list than are really needed.

In its report on locomotive utilization, abstracted in the *Railway Age*, July 4, page 23, a committee of the American Association of Railroad Superintendents cited a 48-hr. check of all active steam locomotives on one railroad which showed that in main-line freight service, of a total of 16,470 locomotive-hours, 33.24 per cent were productive hours, 30.36 per cent were spent in the engine terminal, and 36.40 per cent awaiting assignment. With a rapidly dwindling reserve, it is now being demonstrated that a freight locomotive, carefully maintained at 30-day intervals, is good for many more than eight hours of daily service.

The high percentage of time awaiting assignment is partly an indication of the volume of traffic available. To the extent that this is true, it will be reduced as traffic increases. It is also a challenge both to mechanical and operating officers to study the effect of times of dispatchment, arrangement of runs, and assignment of power.

Blackout Dangers

A head-on collision occurred on the London & North Eastern on last January 30 at 5 p. m. at a signal tower at Cowlairs East Junction in Scotland, resulting in the death or fatal injury of twelve passengers and two employees. The Ministry of War Transport's report, as summarized in the Railway Gazette (London) of June 12, offers concrete warning of the harm which may be done when railroads are forced to operate under extreme blackout restrictions.

The movements involved were those of an express passenger train from Edinburgh to Glasgow, and a light engine crossing over to back down on a troop train. All movements are governed by manual signal indication (apparently unprotected by track circuits). The signalman had started to line up the signals for the light engine to cross over from a dead-end siding where it had been waiting. He was asked to "accept" the Edinburgh-Glasgow express under manual blocking. Peering through a peep-hole in his blacked-out windows, he saw an engine on the dead-end siding where the light engine had been (there had been two there, and not just one as he supposed), and he concluded that the light engine had not started the cross-over movement for which he had begun the signal line-up.

The light engine, however, *had* begun its movement, and was standing on the eastbound main line *right in front of the signal tower*. By peering through the proper peep-hole he could have seen it, but he was a busy man and did not. Instead, he cleared the main line signals for the Glasgow-bound express, and it hit the light engine head-on at about 35 m.p.h. Operating rules require that the fireman of a light engine, stopped on the main line as this one was (because the signal line-up for the cross-over movement had not been completed), should report at once to the signal tower, which the fireman of this engine failed to do. He, therefore, shares with the signalman the blame for the accident—although the investigation to some degree exculpated the latter because of the blackout conditions under which he was working.

In Britain, where Hitler's planes are overhead almost nightly—and especially intent on the destruction of railway lines—severe blackout measures are unavoidable. Whatever accidents the British railways have had as a result of the protective steps they have taken are, doubtless, inconsequential compared to what would happen if they should seek to operate without blacking out.

On the other hand, experience makes it plainly clear that blackout measures can be pressed to a point where they may impair the safety of railroad operation and impede its efficiency. Railroad men in this country in charge of blackout preparations will certainly do what they can to avoid such extremes; and it may be hoped that the government authorities who have the final say will, as regards every impediment they lay on railroad operation, consider whether the speculative risks they wish to mitigate are, in fact, less than the certain ones they propose to incur.

A. T. Mercier Commends Our "Efficiency for Victory" Editorial Program

SAN FRANCISCO

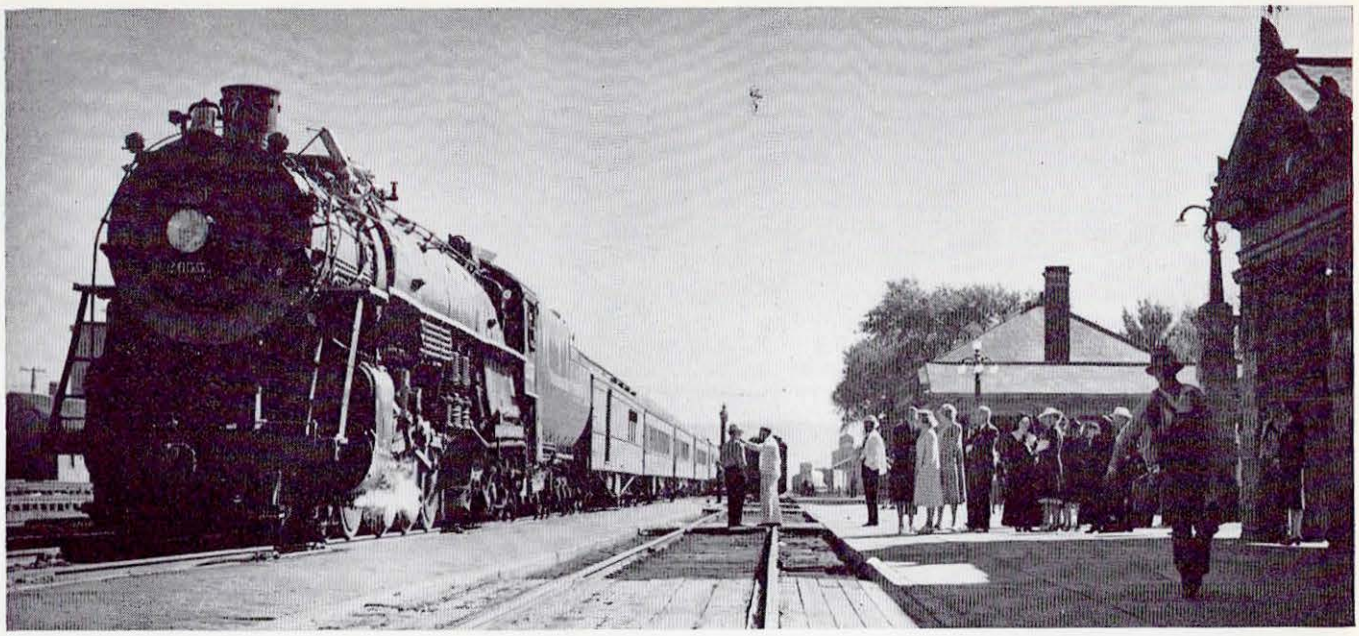
TO THE EDITOR:

May I congratulate you on the "Efficiency for Victory" theme of *Railway Age* for July 4 and the various articles in that issue supporting that theme?

With particular reference to the statement of all your publications, beginning on page 15, "To Keep 'Em Flying, We Must Keep 'Em Rolling," we of Southern Pacific will be glad to give this movement our full support; i. e., to cooperate with your editors and representatives in giving any information that might be helpful to the railroad industry.

Beyond the important matter of publicity within the railroad industry, I feel that publicity going to the general public on new methods and devices being developed and used by the railroads in connection with their war-time performance will be of great benefit to our industry, both now and after the war.

A. T. MERCIER
President, Southern Pacific Company



Station Delays Require Constant Study to Hold Them to the Minimum

How to Reduce Station Delays to Passenger Trains*

Adequate training of employees and mechanical aids in platform work are among the requirements

ONE of our larger passenger-carrying railroads made a study of its passenger train delays in one of its dense traffic territories, covering a period of a year, which showed that station delays comprised the largest single form of delay in 4 of the 12 months, and were in second largest in the remaining eight months. Another significant fact developed was that while scheduled station time represented only about 7 per cent of the over-all schedule, station delays amounted to approximately 25 per cent of the total delays.

Passenger train delays comprise one of the most objectionable features in railroad service, in the mind of the traveling public, and station delays are relatively more frequent than other types of passenger train delays. In attempting to develop the remedies, it is advisable to consider the basic causes of our passenger station delays. Twenty years ago, a relatively small percentage of mail and express was carried on passenger trains on most of our heavier passenger-carrying roads. Furthermore, with the larger number of passenger trains then operated, the switching of passenger cars at intermediate stations was comparatively light. However, during the big decline in passenger business which marked the 1920-1933 period, there was a steady contraction in train schedules in an attempt to hold passenger train mileage in line with declining business. This in turn produced a considerable amount of switching at points between terminals and the handling of relatively large quantities of mail and express on passenger trains. These fundamental changes account for the major portion of our station delays today.

The train consolidations described were probably justified by the low level of business prevailing in the early 1930's. On the other hand, the expanding passenger business which we have enjoyed in subsequent years and particularly in the last few months, alters the picture. The present level of passenger business in many cases necessitates the running of extra sections on existing schedules. This situation affords a fertile field for studying our problem again from the point of view of simplifying our operations and, to the extent practicable, divorcing mail and express business from regular passenger business. This is a fundamental approach to the problem, eliminating the cause at the source. Unfortunately, considerations of operating economy will not permit the problem to be solved completely in this manner and we will probably always have with us a considerable portion of our operations that must be handled otherwise.

In making a study of passenger train delays the first important step is to develop accurate facts as to the causes of delays. The search for the actual and underlying causes of delays, if properly conducted, offers an excellent opportunity to instill the spirit of teamwork and fair play in the minds of the various employees and departments involved. If the importance of the elimina-

* From a report presented to the American Association of Railroad Superintendents by a committee of which K. A. Borntrager, superintendent, New York Central, Rochester, N. Y., was chairman.

tion of delays is carefully pointed out, and the objective to which we are headed is outlined clearly, we seldom find lack of co-operation. Employees taken into our confidence are usually more alert in the performance of their duties and frequently are able to offer worth-while suggestions.

While considering chronic causes, we believe that a simple running record of delays to each individual train can be of considerable assistance in the analysis of station delays. Unless the operations are unusually large, such a record can usually be consolidated on a single large sheet for a two weeks' period at least. By looking over such a sheet, chronic bad trends can be detected and easily called to the attention of the responsible party.

Let us assume that our passenger train operations have been simplified as much as practicable and that we have set up the machinery to record and analyze delays accurately. What next should we do toward solving the problem? To answer this let us consider the proper set-up for performing the work, so that there will be a minimum of lost motion. Generally speaking, this set-up will involve 100 per cent performance in the following:

1. Proper makeup of trains at terminals.
2. Prompt and accurate transmission of train consist and other pertinent data to stations involved.
3. Prompt and clear transmission of train consist, work to be performed, etc., at each station to all interested station employees.
4. Accurate information to station employees as to the arrival time of trains.
5. Planning by all station forces so that work can commence as soon as the train stops and so that proper forces are assigned.
6. Correct performance of train employees to minimize station time.

Makeup of Trains at Terminals

The improper makeup of trains at terminals usually finds its way into station delays at some intermediate station through extra switching, or delays in working mail and express cars that are not in their proper places. It is recognized that in some cases the failure to make up a train properly at a terminal is due to the late arrival of cars from connections. In these cases the cars are added in improper position to permit the train to leave at or near its scheduled time. Each case, of course, must be judged on its merits. However, if the improper location of a car produces more delay enroute than would have been caused by making the switch at the originating terminal, this condition could better be corrected at the source. In any event, care should be exercised in securing the proper makeup of a train at the originating terminal to the greatest extent practicable.

It is important that this train consist be transmitted to the interested stations promptly and accurately. This furnishes the basic data on which the stations plan their work. To secure the utmost efficiency of station forces, it is highly important that all be familiar with the work to be done. At points where the volume of business warrants and where forces are scattered over a considerable area, consideration should be given to teletype equipment or loud speakers. Accurate information as to the arrival time of trains is important in planning station work particularly where it is necessary to shift station forces to meet trains arriving close together at peak periods of the day.

Let us assume that all the steps previously mentioned have been taken, and the station forces of various kinds are now in a position to have the work lined up properly. This means that baggage, express and mail trucks are properly spotted and passengers distributed on the platform as near as possible to the cars which they are to enter. To insure that this will be carried out, it is important in the larger stations to see that the train stops at a designated spot. "Spot boards" for the engineman are useful for this purpose. With a set-up for definitely spotting the train, proper information can be furnished by the gatemen, ushers, red caps, etc., to permit the distribution of passengers on the platform. To assist passengers in boarding trains, signs indicating the locations of cars are also useful. With sufficient express and baggage forces available and red caps properly placed, the station forces are now in position to handle the trains.

Expeditious Performance by Employees

Correct performance of train employees to minimize station time should include the proper announcing of the station stop and point of exit, the collection of baggage by trainmen or porters and stationing of trainmen at their proper stations so that doors can be opened promptly upon stopping of the train. Baggage collected in the vestibules should be unloaded quickly. If conditions warrant, red caps or station porters should be assigned to help in disposing of the luggage. Upon completion of unloading of passengers, the loading of passengers should start promptly, with trainmen and porters lending all assistance possible.

With all passengers loaded and the scheduled departure time at hand, steps should be taken to start the train as promptly as the completion of the head-end work will permit. To this end, both the train and engine crews must be alert in giving and acting on the proceed signal. While there is some divergence of thought on the subject, the general opinion is that hand signals are quicker and more satisfactory than communicating signals when starting a train. The use of the latter may, however, sometimes be necessary when steam, smoke or other obstructions are encountered.

Handling Mail and Express

Mail and express operations can be greatly facilitated if mail clerks, baggagemen and express employees arrange to have all items to be unloaded moved up to a position near the doors so that unloading operations can be undertaken as soon as the train stops.

The foregoing programs, if carried out correctly and energetically should require the minimum of station time. If they fail to meet the scheduled station time, steps should be taken to improve the facilities for performing the work, or the work on the particular train involved should be lessened. The problem largely resolves itself into organization and supervision and the providing of proper tools to do the work.

Head-end work is one of the chief sources of station delays. For this reason there has been a great deal of discussion of the feasibility of providing some means of moving larger units of mail and express into and out of cars. Some progress along this line has been made in handling express shipments by providing baskets and trunks for the loading of small packages for a given station to minimize handling. The experience of the express people seems to indicate that the possibilities in this direction have, in general, been about exhausted. It is possible that some additional steps could be taken to handle certain shipments if the volume of such shipments warrants.

The handling of mail along similar lines does not seem to offer many possibilities. Hampering such an arrange-

ment is the fact that mail clerks are required to check the receipt of individual sacks of mail.

When heavy express shipments are involved, care should be taken to forward rollers, pinch bars, etc., with the shipments to expedite the unloading. Of equal importance in such cases is to advise all concerned properly so that an adequate force is on hand to unload the shipment promptly. The use of power units in moving trucks of mail, baggage and express may offer some relief indirectly in that it keeps employees somewhat fresher physically and thus has a tendency to speed up the handling of mail and express to and from cars. Another by-product that can sometimes be secured from tractor units is the addition of a broom to sweep snow off platforms. Failure to keep platforms clean during heavy snowstorms frequently results in a coating of snow and ice which slows down mail and express handling.

The proper width and length of a platform are also important factors. Generally speaking, a platform 24 ft. in width should be provided if passengers and trucks are handled, and it should be of sufficient length to accommodate the longest trains regularly operated. Stop boards to control the stopping of trains and signs to assist in the prompt handling of passengers are desirable. Teletype equipment and loud speakers are useful in speeding up the dissemination of information to forces in the larger stations.

Minimum time in switching calls for proper track layouts, interlocking, etc. To insure against delays during severe weather, mechanical heating of switches is desirable. Another possibility of speeding up switching is the substitution of Diesel-electric for steam power. Where severe winter conditions are prevalent and trains are watered, steam lines should be provided with risers at proper intervals so that intake pipes and air release pipes to the water tanks can be thawed out promptly.

The possibilities of reducing station delays to passenger trains, in the order of their importance, are as follows:

1. Simplifying passenger train operation by divorcing mail and express business from passenger business to the fullest extent possible.
2. Thorough organization and co-ordination of all passenger train and platform activities.
3. Providing proper and adequate station facilities of all kinds to expedite station work.

Passenger station delays cannot be made to vanish by a magic formula. If it is impossible to secure satisfactory performance on a given train, after considering it from all of the foregoing angles, there is no other alternative but to revise the schedule to meet the conditions, for experience has definitely proved that a dishonest schedule is one of the deepest sources of resentment of the American traveling public.

Oxygen for Everyone, If—

THE oxygen necessary to sustain life is readily obtained from the air in which it constitutes only about 21 per cent by volume. Oxygen for industrial use must be pure and is obtainable only by the use of processes which require extensive plant installations. In 1941 production of oxygen reached a total of 7,181,000 cubic feet and 1942 demands are expected to be very much greater than those of 1941, including in the shipbuilding industry alone an increase of 900 per cent. Steel is not obtainable, nor construction rapid enough if it were obtainable, to permit the construction of new plant facilities to meet increased demands.

In an endeavor to have conservation of wasted oxygen replace part of the otherwise needed new facilities the Air Reduction Sales Company has pursued for a period of several months an educational campaign directed at all users of industrial gases. Sales representatives have cooperated with consumers in eliminating wasteful practices; direct mail approaches have been made to industrial users; and trade and technical journals have cooperated in emphasizing the necessity for the adoption of the best operating practices. Savings of up to 25 per cent in oxygen consumption have been obtained in shops where the recommended methods of conservation have been adopted. Shop posters have been made available from month to month to carry the message of conservation to the actual workers.

In addition to attempting to assure adequate supplies of oxygen to all users by the extension of the best operating practices in all shops a campaign is also under way to speed up the turnover of industrial gas cylinders. A shortage of cylinders for shipping the gases can be averted if the present speed in handling railroad freight cars can be extended to the gas cylinders. The Interstate Commerce Commission has authorized an increase in allowable pressures for shipment which has had the effect of increasing the national supply of cylinders by 10 per cent; users are now being asked to effect a further practical increase by returning empty cylinders promptly to the owners and by exercising every care to avoid damage to them.

OXYGEN is vital..
DON'T WASTE IT
Turn off torches when laying out work.
Do not use wasteful pressures or oversize tips.
Check hose and connections regularly for leaks.
Use all the gas in each cylinder before connecting a new one.
Close cylinder valves when not in use.
Keep tips clean.
Be sure equipment is in good working order.
Help your pals in the Armed Services
FIGHT WASTE

One of a Series of Shop Posters Which Emphasizes the Practices to Be Followed in Conserving Oxygen

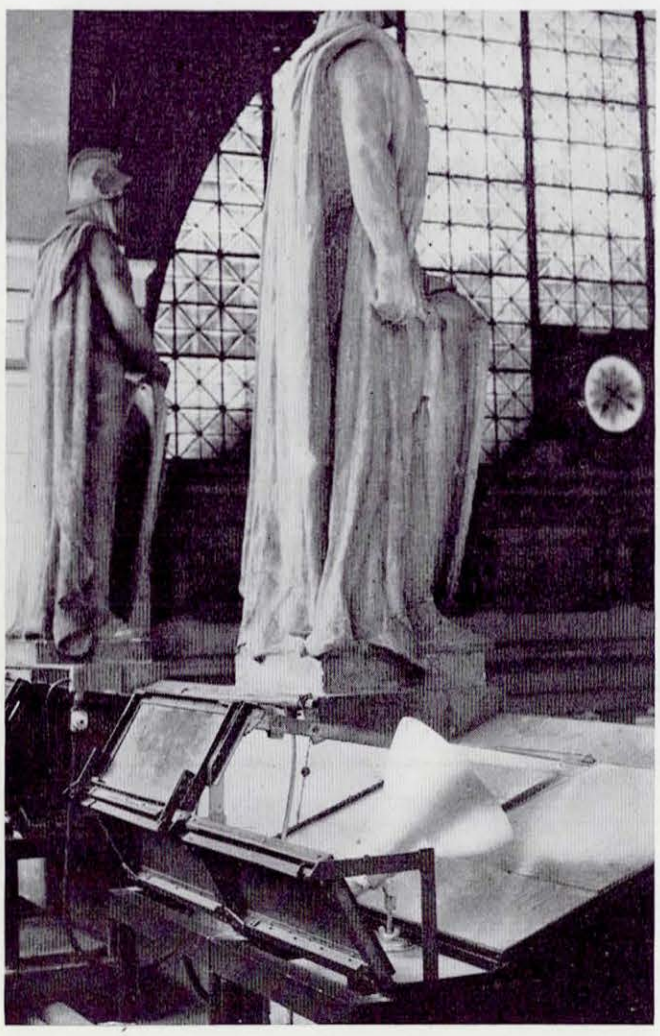
Getting More Light on Less Power

Washington Terminal now has fluorescent lighting system which solves a difficult problem common to all large stations

THE passenger waiting room of the Washington (D. C.) Terminal, which measures 220 ft. x 120 ft., with a height of 98 ft. from the floor to the barreled ceiling, has long presented an awkward lighting problem. Any type of pendant fixtures in sufficient quantity to produce enough light on the reading plane would interfere with the architectural design of the room and would be expensive to install and maintain.

In 1907, when the station was built, it was decided to use an indirect lighting system, with the lighting units placed around the room in the balconies 24 ft. above the floor. A total of 151 inverted arc lamps were used, 14 in each of the 10 balcony alcoves (5 on each side), 7 in the east balcony and 4 in the west colonnade. They were placed above mirrored glass reflectors, designed to direct the light from the arc lamps to the ceiling of the waiting room, from which it was reflected downward for general illumination. Sheets of straw-colored rippled glass were placed over the fixtures to soften the color of the light. The glass absorbed a considerable part of the light, the ceiling somewhat more and, since it had to travel so great a distance, the illumination on the reading plane was only about one foot candle.

Picture Taken in One of the Balconies, Illustrating How the Incandescent Units Have Been Placed in the Original Mirrored-Glass Reflectors



With the development of the high-wattage drawn tungsten filament lamp a few years later, the arc lamps were displaced by 1,000-watt lamps, three per bay, using the original glass reflectors. Seven 400-watt units were installed on the east end bay and four 1,000-watt units on the west colonnade. The 1,000-watt lamps were later replaced with 1,500-watt lamps, and the 400's with 500-watt lamps. The incandescent lamps reduced power consumption and disposed of maintenance difficulties but did not materially change lighting intensities.

The system which has just been installed consists of continuous louvered fluorescent units mounted along the backs of the 24 twin settees on the floor of the waiting room. Louvers on each side of the units are painted black to prevent glare to passengers seated opposite and a wood molding or cover over the top of the units harmonizes effectively with the architectural design of the settees. This arrangement requires only 270 watts for each pair of seats or 6.48 kw. for the total of 24 pairs of seats. This method of illumination is independent of the condition of the finish on the ceiling and side walls of the waiting room. It also represents low first and maintenance costs.

Some additional light is also required for general illumination and decoration. The 1,500-watt lamps in the alcoves have been replaced by 500-watt lamps and the 500 by 200-watt lamps. These lamps are placed in efficient bowl-type reflectors and distribute light over the ceiling area. There are also two 200-watt units in each bay which throw light back into the alcoves to silhouette statues.

Illumination Increased 1400 Per Cent

The saving in power consumption is 25 kw. The light on the reading plane has been increased from 1 to 15 foot candles.

The system gives the station a pleasant—almost cozy—appearance. The reader experiences no eye strain, because there is enough light and no glare, and he sits straight because light reaches his paper equally from both sides.

An added feature of the installation is that when the general lighting from the balcony is turned off, the fluorescent seat lighting is excellent blackout lighting, which complies with the restricted illumination requirements.

The lighting system was designed by J. H. Davis, chief engineer, electric traction, Baltimore & Ohio. The equipment was furnished by the Consolidated Gas, Electric Light & Power Co., Baltimore, Md., and was installed by the Washington Terminal forces.

ABOVE—A Closeup of One of the Settees, Showing a Portion of a Lighting Unit and the Effective Distribution of Light. BELOW—Light for Reading is Supplied by Fluorescent Luminaires Along the Backs of the Twin Settees and General Illumination from Incandescent Units Which Direct Light Upward from the Balconies to the Ceiling

This View, Showing the Temporary Bridges in Place at Morado, Was Taken as the Work of Excavating for the New Underpass Was Nearing Completion. Old Masonry Arch at Left

Steel Bents Are Different

in These Temporary Bridges

Method of interlocking cap beams with H-section piles in falsework at subway job on Pennsylvania has advantages

AN innovation in the design of falsework bents constructed of H-section piles has been developed and used with considerable success on the Pennsylvania. Having the advantage of simplifying the fabrication of the bents in the field and of being applicable even though there may be slight variations in the alinement of the piles as driven, this method has been employed on three separate projects where it was necessary to construct temporary bridges to carry railroad traffic during the building of highway subways.

Specific Projects Described

To illustrate the details of the principle involved, its application to a specific project will be described. The project to be considered involved the construction of a highway subway under the four-track main line of the company's Eastern division at Morado, Pa., about 33 miles west of Pittsburgh. At this point, Route 77 formerly passed under the tracks through a stone masonry arch in an embankment about 25 ft. high. Because the old undercrossing, in which the arch had a radius of only 8 ft., was considered too narrow, it was decided to replace it with a new and wider structure, so located, a short distance from the old structure, as to effect a much-needed rectification in the alinement of the highway.

The structure that was chosen to replace the arch consists of a reinforced concrete box having a width of 30 ft. between the side walls, and including a 1-ft. curb, a 24-ft. roadway and a 5-ft. sidewalk along one side. The box is rectangular in cross-section except that the roof is arched slightly, the total headroom at the center being 16 ft., or 2 ft. more than at the side walls. This particular design was chosen for this location because the subsoil is unstable and it was felt that, in case of movement or subsidence, such a structure, moving as a unit, would give little, if any, trouble. The concrete box incorporates a number of interesting features which are discussed at another point in this article.

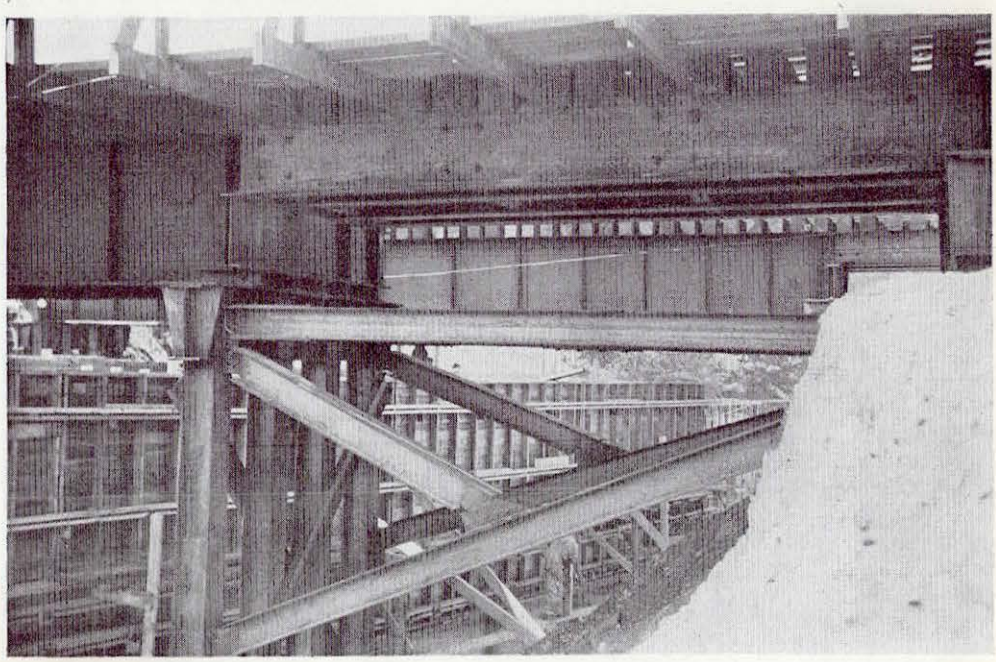
General Procedure

The procedure that was adopted for carrying out this project involved the construction of temporary bridges for carrying the tracks during the construction of the subway. Since the two center tracks carry only local freight traffic, these tracks were taken out of service during the construction work and temporary bridges were built only for the two outer tracks. Each of these temporary structures consisted of a deck plate-girder main span (built with second-hand girders that the railroad had on hand) extending over the location of the concrete box, which was flanked at each end by three approach spans. In each case the approach span nearest the main span consisted of 24-in. 100-lb. wide-flange

beams, 20 ft. long, while the other two approach spans at each end had timber stringers and were 12 ft. long. Pile bents were employed for supporting the temporary spans.

In designing the falsework spans, consideration was given to the fact that it would be necessary to excavate to a maximum depth of about 37 ft. below the base of rail, and that, owing to the nature of the subsoil at the site, difficult pile-driving conditions would be encountered. Because of these considerations it was felt that it would not be possible to obtain sufficient penetration with wood piles at the higher bents to insure the stability of the temporary structures after the excavation had been carried out to the required depth. For this reason it was decided to use H-section steel piles for the bents

Right, Above—Close-Up View of the Cap Construction at One of the Three-Pile Bents in the Temporary Bridges



Right—Showing One of the Four-Pile Bents and the Adjacent Construction

Below—View of the Completed Underpass. Note That the Old Arch Has Been Filled In

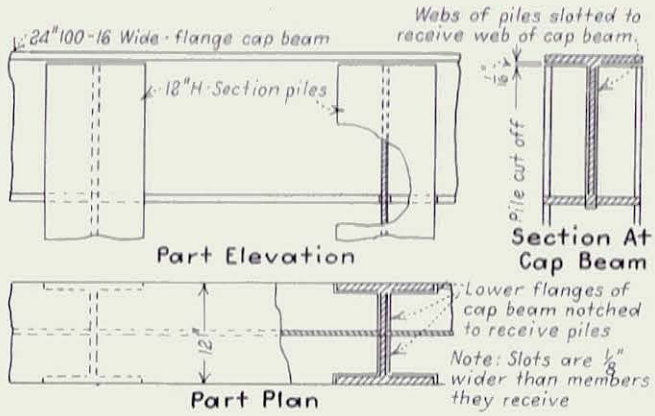
under the ends of the main spans and under the adjoining ends of the steel-beam approach spans. The height of the remaining bent in each approach was relatively shallow; hence wood piles could be used with safety at these bents. In other words, each approach embodied two bents of H-section piles and one of wood piles. The extreme end of each approach span was supported on a timber grillage.

Construction of Bents

Each of the bents under the ends of the main spans consisted of four 12-in. 53-lb. H-section piles, ranging between 50 ft. and 60 ft. in length, which were driven vertically to rock in a single row on 3-ft. centers. The sway-bracing consisted of 10-in. 20-lb. channels. The bents under the adjoining ends of the steel-beam spans were similar except that each of these contained only three piles driven on 4-ft. 6-in. centers. Each of the steel-pile bents was capped with a 24-in. 100-lb. wide-flange beam, 11 ft. long, and it is the manner in which the cap beams were interlocked with, and fastened to, the H-section piles that comprised the unusual feature of the construction.

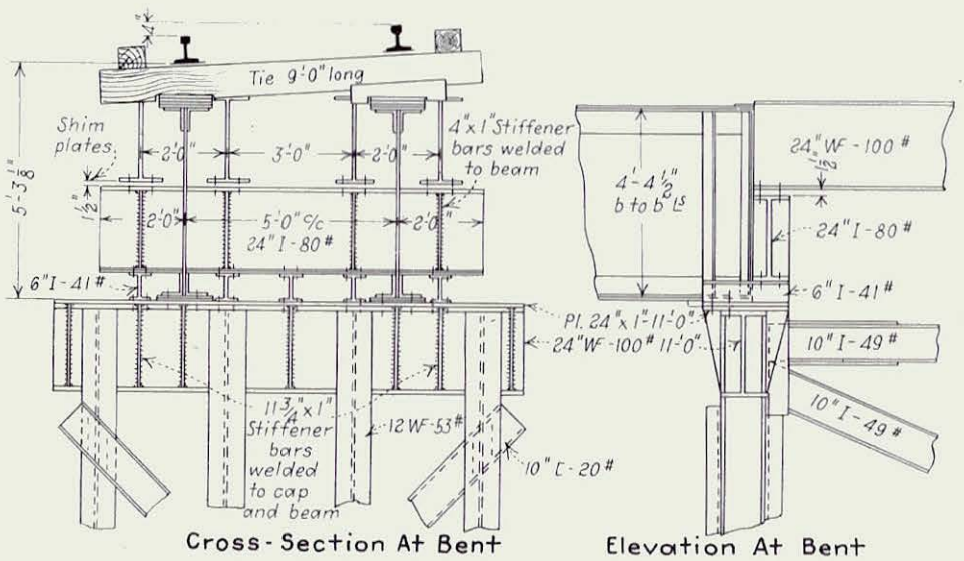
Briefly, this method of fabrication involved the cutting of vertical slots in the centers of the webs of the H-section piles to receive the web of the cap beam, the lower flange of this beam having been notched previously to receive the webs and flanges of the piles. A clear understanding of the method can best be obtained through a description of the manner in which the work of fabrication was performed in the field. In each bent the piles were so arranged that their webs were parallel to served as a guide in making vertical slots in these webs to receive the web of the cap beam. In all cases the slots and notches were made ⅛ in. wider than the thickness of the members that were to fit into them.

When this work had been completed the cap beam


24"100-16 Wide-flange cap beam
12"H-Section piles
Webs of piles slotted to receive web of cap beam
Pile cut off
Part Elevation
Section At Cap Beam
Lower flanges of cap beam notched to receive piles
12"
Note: Slots are ⅛" wider than members they receive
Part Plan

This Sketch Shows the Manner in Which the Cap Beams and the Piles Were Interlocked With Each Other

was placed in position in the bent so that its web occupied the vertical slots in the webs of the piles, while the webs and flanges of the piles extended through the notches in the lower flanges of the cap beam. Thus, it can be seen that the cap beam and the piles were thoroughly interlocked with each other. The entire assembly was then fastened together by means of ⅜-in. fillet welds



Showing Details of the Bent Construction Under the Ends of the Main Spans

the track, and after they had been driven they were cut off with oxy-acetylene torches to the desired level, which was 1/16 in. below the underside of the top flange of the cap beam.

Next, a wood template having a width equal to that of the cap beam flanges (12 in.) and a length equivalent to that of the cap beam (11 ft.) was laid on top of the piles. With this template in position, a mark indicating the center of the cap beam was made on the web of each pile. Also, the outline of the web and flange of each pile was inscribed on the template. These latter outlines provided a pattern by means of which the lower flange of the cap beam was notched to receive the webs and flanges of the piles, while the marks on the webs of the piles which were made on both sides of the members at all points of juncture between the piles and the cap beam. Although a substantial template was employed in driving the piles in each bent in order to keep them in line and square with each other, it is evident that, with this method of fabrication, slight irregularities were not a serious handicap. Also, it was considered to have the advantage of simplifying the field work.

Other details of the bents included the reinforcing of each of the cap beams with stiffener bars which were welded vertically to the web of the beam and to a 1-in. by 24-in. bearing plate, 11 ft. long, that was placed on top of the beam, this work being done in the shop. At

(*Continued on page 141*)

The Diesel-Electric Locomotive and Smoke Prevention

Growth of Diesel service in the Chicago district and defects which cause such locomotives to smoke

"IN a paper presented before this association in 1929, I stated that from May, 1926, when we placed in service the first Diesel-electric locomotive we have not received a single complaint about smoke emitted from the Diesel-electric locomotives. I am very much pleased to make the statement that, to date, we have not received any complaints of violations for smoke emitted from any of our Diesel-electric locomotives, of which we have many more in service," said Charles H. Longman, assistant chief operating officer, Chicago & North Western, in his paper on Diesel Locomotives presented at the convention of the Smoke Prevention Association of America, Inc., held at the Hotel Statler, Cleveland, Ohio, June 2-5, 1942. He pointed out, however, that if not properly maintained Diesel-electric locomotives will emit considerable smoke and carbon deposits.

At the time his 1929 paper was presented at the Kansas City, Mo., convention of the association, Mr. Longman said that it was his duty, as road foreman of engines, to instruct the engineman in the proper handling of the three 300-hp. Diesel-electric switch engines which the road had put into service in what is known as the State Street and North Pier district due to the numerous complaints which the company had received about the smoke emitted by the steam locomotives which had been assigned in that territory. He recalled that, in his earlier paper, as the result of his experience with these locomotives, he had suggested that the effect of the general use of Diesel-electric locomotives on steam railroad electrification was more likely to be favorable than otherwise. In the light of the great strides which the Diesel locomotive has since made, he said that he is now convinced that his earlier opinion was correct.

Continuing his paper, Mr. Longman said: "Because of the excellent results obtained from the first three Diesel-electric locomotives the management has placed in service in Chicago three additional Diesel-electric switch engines, two 600 hp. and one 900 hp. Nine 2,000-hp. passenger units also operate out of Chicago, north and northwest, between Chicago, Milwaukee, Green Bay, Wis., Minneapolis, Minn., and Ishpeming, Mich., on what is known as our fleet of "400" trains.

Growth of Diesel Services in the Chicago Territory

"The C. & N. W. also has at this time 20 additional Diesel-electric power units operating in and out of the Chicago terminal daily. These units are jointly owned by the C. & N. W., the Union Pacific, and the Southern Pacific, and are assigned to trains operating between Chicago and Denver, Colo.; Chicago and Portland, Ore.; Chicago and Los Angeles, Calif., and Chicago and San Francisco, Calif. This makes a total of 32 more Diesel-electric locomotives operating in Chicago on the C. & N. W. than were in service in May, 1929. These additional units range in horsepower from 600 to 6,000. Practically every railroad in Chicago has placed many Diesel-electric locomotives in service and a great many of the railroads operating into Chicago have also placed in service many Diesel-electric power units on their passenger trains which replace steam locomotives.

"From its inception into railway service in 1926 and 1927, the rise of Diesel power has been very rapid. In 1926 and 1927 there were three Diesel-electric locomotives in service in the Chicago district with a total of 900 hp. in switching service. As of June 1, 1942, there were 148 Diesel switching locomotives of various horsepowers ranging from 300 to 2,000 totalling 112,200 hp. In 1926 there were no Diesel-electric locomotives in passenger service. As of June 1, 1942, there were 64 Diesel-electric locomotives ranging from 1,200 hp. to 6,000 hp., with a total of 206,000 hp.

Causes of Smoke from Diesel-Electric Locomotives

"The placing of this large number of Diesel-electric locomotives in service will do much toward the elimination of smoke and air pollution, provided the Diesel engines are properly maintained. Do not get the impression that the Diesel locomotive will not emit smoke; it will if the proper attention and maintenance are not given. The following defects will cause the Diesel engines to emit smoke: valves not seating properly, due to cut valve seats, or stuck valves caused by carbon deposit on valve stems; cracked pistons; stuck piston rings due to improper lubrication; injectors out of time which causes them to fire too soon or too late; dirty air filters restricting the air supply to cylinders and causing improper combustion. These are the most frequent causes for Diesel engine smoking, plus improper handling of the engine throttle and cooling ventilators by the enginemen in charge. The temperature of the Diesel engines should range between 160 and 180 deg. to obtain best results and a clean exhaust.

"Each cab unit of our Diesel-electric locomotive running between Chicago and Milwaukee, Green Bay, Madi-

Assignment of Diesel-Electric Locomotives Operating in the Chicago District as of June 1, 1942

Hp.	Switch and transfer	Road freight and passenger	Total
300	5	..	5
600	95	..	95
650-660	5	..	5
900	16	..	16
1,000	19	..	19
1,200	..	3	3
1,800	2	6	8
2,000	4	14	18
2,700	2	..	2
3,000	..	2	2
3,600	..	12	12
3,800	..	2	2
4,000	..	21	21
5,400	..	2	2
6,000	..	2	2
Total	148	64	212

son, Ishpeming, and Minneapolis, consists of two Diesel engines developing 1,000 hp. each, making a total of 2,000 hp. per unit and handling a maximum of seven streamline cars at speeds ranging up to approximately 110 miles an hour. These units are built with control equipment and pilots on one end so that they can be coupled together for multiple control, operating as one unit developing 4,000 hp., and are capable of handling sixteen standard Pullmans at speeds up to 110 m. p. h.

Performance of Diesels in Road Service

"The first four of these units were put in service in June, 1939, and have been in continuous service daily, making a round trip between Chicago and Minneapolis, handling eleven streamline cars on trains 400 and 401 and from fourteen to sixteen standard Pullmans on trains 405 and 406. The round trip is 826 miles. The first one of these units to be put into our shops for general repairs was taken out of service on May 25, 1942, after making a total of 900,000 miles. The cost for repairs for the three-year period was 11.28 cents per mile, with an average availability of 99.5 per cent. All running repairs were made on layover periods, which was four hours at Chicago and one and one-half hours at Minneapolis. These four units replaced six 4-6-2 type steam locomotives with a total traction force, including the booster, of 55,900 lb.

"The other five units, which were placed in service in August, 1941, also have replaced six steam locomotives which makes a total of twelve fewer steam locomotives operating in and out of our Chicago passenger station daily. This also eliminates the knocking of fires and building fires on these twelve steam locomotives, which is cause for the elimination of the so-called nuisance of smoke and air pollution at our passenger terminal as well as at our enginehouse.

"Another redeeming feature of the Diesel-electric locomotives is the fact that when they arrive at the service point after completing their trip, they are shut down at once, thereby saving fuel and also eliminating any possibility of smoke."

In concluding his remarks, Mr. Longman said that the "400" trains of the C. & N. W. have shown an increase of 25 per cent in travel since the Diesel-electric locomotives and streamline trains were put in service on these runs. He predicted that after the war even greater strides will be made in the use of this form of equipment, with further abatement of smoke and air pollution.

Some Diesel Renewal Cycles

W. A. Langlands, master mechanic of the C. & N. W., at Chicago, who read the paper in the absence of the author, added the following remarks:

"The fact that we have made 900,000 miles with these units I would say is due to the very good organization we have. You must have trained mechanics if you are going to run Diesel engines successfully. You must have men who know how to handle fine tools; then you will have very little trouble with the Diesel units.

"When we first started operating Diesel units I used to be afraid to hear the telephone ring at night, but not any more. We have had wonderful success with them, but it was all plainly due to training the mechanics and the engine crews. The crew can abuse the unit. We had many a burned-out traction motor, broken pinion gear, and different defects when we first started running Diesels, due to the men reversing the engine while it was still in motion. This is the worst thing you can do because the motor starts regenerating and bucking.

"In the 900,000 miles we have made with these units, we have had one broken pinion gear; we have never had any crankcase trouble; we run the piston rings an average of 200,000 miles, and we have got more out of the main bearings than 200,000 miles. We are changing them now on an engine that is in the shop for a second time, which is around 450,000 miles. Connecting rods average 300,000 miles."

Management "Yardstick"

HOW the management of an industry can achieve the two difficult objectives—(1) firm control over every vital phase of the business and (2) find time to look ahead, planning adequately for the future—is a subject which a recent book* analyzes from a standpoint, not of theory, but from actual experience of 31 of the country's largest and most successful industrial enterprises. From the practices of these companies, the authors have produced a work which might be called a "yardstick" of effective managerial standards. Any large company should be able to compare its management procedure with that set forth by the authors and reach its own conclusions as to where its particular methods may fall short of the best ones in actual use. Not all the book's analysis is applicable to railroads, but a large part of it is.

The primary responsibilities of top management are set forth as follows:

"Farsighted planning and clarification of objectives, visualizing the needs of the business and determining its most advantageous future course.

"A sound plan of organization, enabling all of its parts, individually and collectively, to function most effectively in reaching the common objectives.

"Fully qualified personnel in all key positions, insuring each individual's proper contribution to the whole program.

"Effective means of control, permitting top executives to delegate wide responsibility and authority, thereby freeing themselves of administrative detail in order to concentrate on broad planning and direction."

The book then proceeds to tell specifically how experience shows these responsibilities can best be fulfilled.

The reason that top management does not get around to planning adequately for the future (near and long-term) is that it is too preoccupied with current problems. There are three steps necessary to free it from such preoccupation, viz.:

1. Devise a sound plan of organization.
2. Have fully qualified personnel in all key positions.
3. Institute effective methods of control.

To secure a sound plan of organization the first necessary move is to *chart the present organization.* "Any organization relationship which cannot be readily charted is likely to be illogical and therefore confusing to those working under it." The organization chart should

"be supplemented by written specifications defining the essential requirements of each level of management, each department, each committee, and each key job or group of similar jobs. Only by a thorough understanding of their respective parts in the whole management picture are individual executives and agencies able to devote their full energies to effective discharge of their proper functions, avoiding duplication of effort, friction, and working at cross purposes which result from lack of organization clarification."

* Top-Management Organization and Control. By Paul E. Holden, Lounsbury Fish and Hubert L. Smith. Published by Stanford University Press, California.

The dividing line between the functions of directors and executive personnel is clearly drawn—to avoid a confusion which may result in friction and ineffectiveness. A similar clarification of the functions of chief and departmental executives is next set forth. The working of staff and "control" (i. e., accounting, personnel, etc.) organizations is specified (with means whereby such agencies can be applied, not only to the headquarters, but also to local divisions). The place and function of "service agencies" (research and engineering, purchasing, etc.) is next expounded.

In its survey of the staff departments in the companies under investigation, the authors discovered that almost all had personnel departments, but they found this department "in very few cases—to be operating under a plan of organization conducive to the full accomplishment of its logical purposes." This department, it appears, usually does a thorough job of labor relations and in the handling of rank-and-file personnel. It is inclined to slight its other functions, viz., Research (on personnel methods, benefit plans, labor legislation), Employee Benefits, Training and Development, Employment, Medical Service, Safety.

An "Organization Manual" Is Needed

The authors interpret the experience of the companies under observation to conclude that a *large corporation needs a staff agency to spend all its time specializing on organization problems* (maintaining, for one thing, an "organization manual" which should completely specify the function of each department, its relation to all other departments and the authority and responsibility of each officer). The duties of other staff agencies (cost-control, merchandising, economic planning, public relations) under the best prevailing practice are set forth with similar clarity. A particularly informative chapter deals with committees—what jobs they can and can't do, and how they need to be organized for most effective work.

Perhaps the most practical part of the work (more than half of the book being devoted to this subject) is that dealing with the "control" problem—i. e., how management can "give authority to those capable of exercising it and yet retain control in the hands of those ultimately responsible." Here are given the basic principles, followed by an enumeration of a multitude of specific devices whereby a manager can keep the reins in his hand while having time to devote to interests other than driving. For instance, in discussing the control of "policies," the authors explain that the term is loosely used to mean "departmental procedure, usual custom, basic course of action, or departmental custom."

Actually, for a "policy" to be an effective tool of control (i. e., saving management's time in making a multitude of individual decisions, while not permittng bad practices to grow by custom and get out of hand) it should be clearly stated in writing after due consideration; it should be subject to frequent review for desirable modernization; there should be some system instituted to secure proper understanding and compliance throughout the organization. Only with such safeguards is a "policy" a device which will both free managerial attention from detail, and also prevent bad practices.

The device of the detailed job specification for each important subordinate executive is particularly stressed. In an example given, a regional officer's duties are fully set forth. The specifications make plain what is expected of this man in the way of performance and a *definite check is provided which shall be the criterion to determine whether he is or is not functioning successfully*. His degree of authority over hiring and firing, his relationship with other departments and his power to authorize expenditures or commit his company are set forth so plainly that no misunderstanding can arise about it. This man's superior will have to spend very little time in keeping fully informed as to the quality of the subordinate's performance, or in doing any of his proper work for him.

Similar exposition and judgment as to the best methods are given with respect to other "controls" (many with applicability to the railroads)—such as quality of key personnel (selection, training, appraising), wages, costs, methods and manpower, service departments' efforts, research and development, over-all performance. A report of one company particularly successful with its public relations seems especially significant:

"The character of a business is what that business actually is; its reputation is what people believe it to be. It is our aim to make these two as nearly as possible synonymous.

"The Public Relations Department aims to give the facts about the business to anyone who has a right to know them. . . .

"Sound public relations for any business begin, of course, with honest and efficient operating policies. If the internal situation is unsound, no amount of publicity can cover up that fact."

The book, in sum, is a mine of wisdom in managerial methods, wherein any executive can find practical suggestions for increasing his control over his job, while releasing him—at least in part—from preoccupying detail. It qualifies as productive reading matter, equally for war-time and thereafter.

Steel Bents Are Different

(*Continued from page 138*)

each of the bents under the ends of the main girder spans, the girders rested directly on this plate, but a grillage of steel beams was superimposed on top of the cap beam to provide a bearing for the adjacent end of the adjoining steel-beam span. At the opposite end of each steel-beam span, the beams rested directly on the bearing plate of the bent at that location. Longitudinal bracing, consisting of 10-in. 49-lb. I-beams, with bolted connections, was provided between the two steel bents in each approach to the main spans.

As indicated at the beginning of this article, the new highway subway that was constructed at this location also incorporates a number of interesting features. For instance, at each end of the concrete box forming the subway, the floor of the box terminates in a reinforced concrete apron that is integral with the footings under portions of the wingwalls. Since the wingwalls are keyed to the footings, and the vertical reinforcing in their back sides extends down into the latter, it is apparent that the aprons, being integral with the wingwall footings, are utilized as a means of helping the wingwalls resist the pressure against them. In other words, it might be said that the principle involved in the wingwalls is that of a cantilever wall in reverse. Also of interest is the fact that the box, including the aprons and wingwalls, is supported on bearing piles consisting of 12-in., 84-lb. H-sections, there being a total of 118 such piles ranging in length from about 18 ft. to 30 ft.

This project was financed by federal funds and was carried out by the Pennsylvania State Highway Department which awarded the contract. However, all design work was done by the railroad under the supervision of C. I. Leiper, chief engineer of the Central region, and J. F. Leonard, engineer of bridges and buildings. The Tri-State Engineering Company, Washington, Pa., was the contractor on the project.

International

The Unmistakable Anglican Origin of This Equipment in Iran (Persia) Reveals One Very Good Reason Why British Railways Must Ration Their Service

How Britain Controls Transport

Railways are nominally in government's hands, but operation is left to their managements—All war traffic moves at flat fee per ton ("agreed rates")

THE administration of the railways under war-time conditions in Great Britain is known as "government control"—but it does not involve management of the carriers by political authority. There is no equivalent in Britain of such an organization as Mr. McAdoo established in this country during the last war. For that matter, there is no equivalent to this war's ODT—at least, not for the railways. Instead, the general direction of the railways is entrusted to a "railway executive committee," composed of the chief executives of the major systems, with an independent chairman (formerly also a railway executive)—this committee acting as the agent of the Ministry of War Transport. The control of transportation in Britain has, necessarily, been drastic in character—because, not only has there been extraordinary heavy traffic to handle, but the railways have been subject to enemy action to a degree which has virtually placed all the railways in the zone of active combat. The British Supply Council in North America (at Washington, D. C.) has issued a summary of the transport situation in Britain, which enumerates some of the steps taken to deal with extraordinary conditions as follows:

The Link Between Railways and the Army

"To handle government traffic, the principal government supply departments have appointed Movement Offices through the country to control their urgent rail traffic in co-operation with Railway Liaison Officers, specially appointed by the Railway Executive Committee for this purpose. In addition to the Movement Officers, the three services (Army, Air Force and Admiralty) have appointed Military Railway Traffic Officers who are posted at railway stations where military traffic is extensive (particularly troop traffic). These officers act as a channel of communication between the services and the railway officers. The Railway Liaison Officers act as a funnel through which the railway operating staffs receive information on the demands of all government shippers and consignees, both production and military.

"Apart from large-scale military movements—such as mobilization of the Army and evacuation of the civilian population which are planned well ahead of execution—major movements are worked out by the War Department and reported to the Ministry of War Transport for the issue of the necessary instructions. Major movements would be defined as anything requiring more than two trains, while minor movements which require less than two trains are notified to the railways direct by local military officers without necessarily going through the District Command and from thence to War Transport Ministry."

A "Car Service Division" Established

Approximately half of the freight cars on the British railways are owned by industries, and war conditions required more effective distribution and use of the available car supply. Accordingly "The Railway Executive Committee on March 1, 1941, created an Inter-Company Car Control Organization with responsibility for all freight rolling stock, including that requisitioned from private owners. Excepted were a limited number of

specially constructed vehicles, such as 'armor plate' and 'gunpowder' cars, which are controlled individually by various government ministries.

"The work of the Car Control Organization is executed by a staff of experienced freight car distributors drawn from all companies and is supervised by an Inter-Company Freight Rolling Stock Committee with a full-time chairman. This committee is responsible to the operating committee of the Railway Executive Committee."

At 10 a.m. each day telegraphic reports are made by all stations, showing inbound cars of all classes on hand, and the cars required for the following day's loading; the number of empties on hand; the ratio between the prospective loading of the next day and the cars available or in prospect to meet it. This information is summarized for the Car Control Organization by 4 p.m. daily—and steps are at once taken by it to correct any unbalance between the next day's loadings and the distribution of rolling stock. The summary reports further of the Car Control Organization as follows:

"Instructions [i.e., regarding shifts in car distribution] are telephoned to the headquarters of the companies, which are held responsible for their prompt execution.

"The control operates 24 hours a day. It is in constant hourly communications with the freight car distribution offices of the railway companies. Thus the position is constantly under review and any changes can at once be made.

"The control is kept in touch with all traffic movements and is thus able to make special arrangements in advance to meet special needs. Its operations have reduced haulage of empty freight cars and promoted more efficient use of available equipment.

"To speed the turnaround of freight cars, the 'free period' allowed to patrons for loading and unloading freight cars has been reduced to one day (exclusive of the day of arrival), and the existing demurrage charges for detention beyond the free period have been drastically increased. Inter-departmental arrangements have also been made to check any tendency to excessive holding of cars containing government traffic.

Control of Traffic Priorities

"A list or priority of essential commodities was drawn up before the war as part of the emergency plans. This list is modified from time to time by the Transport Priority Committee, composed of representatives of government departments. Besides the ordinary priority list, a special red slip is attached to the regular government consignment note when special priority is needed—as, for instance, when an important shipment must reach a convoy at a certain time. Though supplies of these slips are held throughout the country by railway freight department offices, the officer may use them only on direct authority from the Railways Division of the Ministry of War Transport. This authority first goes from the government department concerned to the Ministry, from there to the Railway Executive Committee and thence to the local freight traffic officer."

The list of priority traffic includes all freight to or from military establishments or munitions factories and such other traffic as is declared essential by the government. Such essential traffic includes materials used in air-raid protection, food, fuel, medical supplies, spare parts for automotive vehicles and any shipment which is designated for preferred handling by a Movement Officer of the government departments authorized to issue such instructions (i.e., the War Office, the Admiralty, the Air Ministry and the Ministry of Supply).

Passenger Service Cut 30 Per Cent

"Long distance passenger service in England has been cut 30 per cent. The most recent cuts were made to free heavy locomotives for freight work and thus relieve the shortage caused by the export of locomotives for military use overseas. The loss in passenger-carrying capacity has been repaired to some extent by withdrawing dining and sleeping cars in the lines affected and substituting ordinary passenger coaches.

"Vigorous efforts have been made to conserve the use of freight cars, particularly with a view to reducing the number of transshipments. Schemes prepared by the companies but made compulsory by the government have been adopted (a) to develop nominated loadings, [i.e., "sailing days"] and (b) to force the bulking or amalgamation of less-than-carload lots. This was done individually and conjointly by the various companies.

"At places served by more than one company, traffic may be despatched only over certain routes to certain areas (a) on specified days of the week, and (b) by one company's route. A further provision requires that there be enough traffic to warrant through loadings or the load must be sent to a more favorable transshipment point."

Controlling Trucks

For the control of truck traffic, the country is divided into districts (coinciding with the areas established to administer peace-time truck regulation). For each district there is a district truck traffic officer, reporting to a regional commissioner who, in turn, reports to the War Transport Ministry. These officials are government employees. To avoid the necessity of individual contact with each of the country's 200,000 truck operators (operating 500,000 trucks), the operators were encouraged to organize local "groups"—and got no fuel unless they did. The groups are quasi-public in character, and are given wide power (under close supervision) in the pooling of traffic, etc. Maximum loadings and efficient use of available facilities is thus secured by extensive government regulation which, however, leaves a large measure of initiative in the hands of individual operators and "groups" in instituting measures for improving efficiency.

This plan met all requirements until about a year ago —when a further scheme was adopted to put 2,500 trucks continuously in government service (to be thrown into the breach, for instance, if a railway or a port were temporarily put out of business by an air raid). These trucks are leased (and are in addition to 1,600 used by the government for hauling meat) at a standard weekly guarantee and a mileage rate.

In addition, the 1941 innovation provided for the establishment of an (unpaid) Advisory Committee of truck operators—to operate what is known as the "Hauliers' National Pool," which allocates traffic assigned to it by the Ministry of Transport (and not carried by the vehicles operated directly by the Ministry under lease). There is a further auxiliary pool of trucks provided for emergencies—vehicles registered as being immediately available when special demand arises. Rates are established by the Ministry in consultation with the truckers' local committees.

Airlines, Motoring, Docks

Buses are not subject to especially stringent regulation, except fuel rationing to curtail unnecessary mileage. Private pleasure motoring was completely stopped on July 1. Private airlines have discontinued operation—all service being provided by the R. A. F. transport division.

Dock operations are completely centralized in the Ministry of Transport, incoming ships not knowing where they will go until they draw near England. Such centralization is obviously necessary since military conditions, shifting daily, require conformable adaptation by shipping. There is a Port Emergency Committee in charge of each of the country's 47 ports, which co-ordinates all activities to assure the maximum efficiency in day-to-day operations. On this committee are represen-

tatives of the port authority, shippers and consignees, ship owners, railways, truckers, etc. Their job is to co-operate with each other to secure the quickest possible turn-around of ships.

Export traffic is controlled at point of origin to prevent its reaching port before vessels are ready to receive it. In practice, the Transport Ministry does no more than divide the traffic up among the ports according to their capacity and convenience. Responsibility for actual operation is in the hands of local authorities.

All War Freight at "Agreed" Rates

The Ministry of Supply has an elaborate traffic and transportation organization, which has, practically speaking, taken over most of the traffic management of the country's war industries. Not only does this organization make all arrangements as to routing, etc. but it has revamped the system of supply, so that sources are used which involve a minimum of transportation. Certain civilian traffic (bricks and cement, for instance) is subject to a mileage limitation for railway haul, purchasers being expected to secure supplies from nearby sources.

Perhaps the most far-reaching step the government has put into effect as far as the railways are concerned is the "agreed charge." That is to say, railway revenues per ton for each governmental department's traffic were averaged over a period—and, thereafter, all that department's traffic is hauled by the railways for that flat rate, regardless of class of traffic or distance hauled. Savings in accounting and clerical work, of course, are enormous. Railway rates in general are at the present time stabilized at one-sixth above the pre-war level.

Eastman Warns Unions Against "Tyrannizing"

UNION labor is admonished by Joseph B. Eastman, director of the ODT, to beware of tyrannizing over the American people; and the railway unions (which he absolves of such behavior) are advised to "keep their record clean" and to use their "large influence in the labor world" to better existing conditions therein.

This word of warning came in an address by Mr. Eastman to a meeting of the Brotherhood of Railway Clerks at Denver on July 17. The ODT director did not attend in person, but wrote the address, which was read for him by Otto M. Beyer, head of the ODT division of transport personnel. Said Mr. Eastman:

"Being a preacher's son, I am tempted to do a little preaching. Having lived for three-score years, there is quite a little past which I can recall and ponder over. Most of the early settlers of this country and many who migrated later came here to escape tyranny. This country wants no tyrants, and now it is fighting to prevent tyrants from ruling the world. It has not always been easy to prevent tyrants from rising at home.

"I can well remember when the great financial and business interests were secure in the saddle, or thought they were, and when they showed a tendency to breed would-be tyrants pretty rapidly, and some of them could be classed with pirates and buccaneers. The tide has turned or the pendulum has swung, and now the business interests have much less power, and organized labor has more power than it ever had before.

"The temptations of power are very great, so that now in the labor world we see the same old tendency to develop tyrants, pirates, and buccaneers. The American people are slow to action; it takes time for public opinion to get in motion, but they do not want tyrants, crooked or straight, or any part of them, and sooner or later they will demand a housecleaning, and I believe it will be sooner."

Earlier in his message, Mr. Eastman recalled that, as Federal Co-ordinator, he addressed this same union back in 1935. He said:

"I gathered that the general trend of my remarks carried no great appeal, as far as you were concerned. There was not enough traffic to go around. In those circumstances, the theme of my remarks was that the railroads must meet the competition by reducing expense and improving service in every feasible way, and that such a policy would in the long run be in the interest of the employees, regardless of what might seem to be the immediate consequences, against which they could be measurably protected. I thought those remarks were sound then, and I remain of the same opinion."

Director Eastman paid high tribute to both managements and employees of the railroads for the fact that the carriers have "functioned splendidly" in carrying war and civilian traffic so well. He added, however, that "it is never safe at any time, and least of all in time of war, to become complacent and forgetful of what may be ahead." He then summarized some of the difficulties facing the railroads by reason of constantly growing traffic and a limited supply of equipment. Continuing, he said:

"The motive power is of vital importance. Schedules must be adjusted so that in a given time the locomotives will haul as much freight as possible. Trains must be made up so that there will be the least amount of switching en route. The time spent by cars in terminals must be cut to a minimum. The cars must be loaded as nearly as possible to capacity, not only to make the cars do more work, but also to conserve the use of motive power. There are parallel single-track lines which can probably be converted into the equivalent of one double-track line. The locomotives must be handled more nearly as though they were pooled, so that if one railroad is short of power and another is long, the latter can help out the former."

Mr. Eastman said he knew he could depend upon railroad employees to do their utmost. "The only fear I have," he continued, "is that they may, considering only the immediate present, fail at times to see the importance" of the steps to conserve railway equipment which he outlined.

Mr. Beyer, in his own address to the meeting of the Clerks' Brotherhood, stressed the importance of adequate and efficient manpower in maintaining railroad service at necessary levels of efficiency. He revealed that, by the end of 1942, there will be 600,000 people working for the railroads who never before did railroad work. The perennial railroad personnel situation of plenty of experienced employees available to meet all requirements has disappeared. Even as early as February of this year railroads reported shortages to the ODT in machinists, brakemen, clerks, sheet metal workers, telegraphers, electrical workers, boilermakers, firemen, signalmen, carmen and blacksmiths. The situation hasn't improved since February.

The speaker declared that railroads must "streamline their recruiting and training methods to meet the demands of the war." In promoting such a program among the railroads, the ODT "must have the support of the great employee organizations of the railroad industry." He pointed out that, in a time of labor shortage, the unions "hold the high cards in the game," but they should "play these cards with wisdom and restraint. I do not think that your greatest problem at the moment is one of maintaining organization and union standards. Your main problem is the job of insuring the survival of democratic organizations and democratic standards."

The speaker asked for employee aid, not only in the training of newcomers, but also in increased efficiency—more output per man.

Railroads-in-War News

Oil Loadings Hit New Record High

Carriers haul 788,550 barrels a day; Congress approves Florida barge canal

A new record movement of 788,550 barrels of oil each day by rail to the east coast during the week ended July 11, was announced on July 16 by Petroleum Coordinator Harold L. Ickes.

This is an increase of 56,790 barrels daily over the old mark of 731,760 barrels averaged during the week ended June 20, and is 68,040 barrels a day more than the volume moved in the week of July 4. Part of the increase, according to Mr. Ickes, may be attributed to the fact that some western refineries did not load cars on July 4 and consequently had an extra day's supply available for loading last week.

In handling the movement the 32 oil companies loaded 26,285 cars. Including cars that were on the way back west for reloading, it is estimated that the east coast service employed 62,000 cars, which were taken largely from other sections of the country.

Meanwhile, the House and Senate have completed Congressional action and have sent to the White House H. R. 6999, the bill which authorizes the construction of a barge canal across northern Florida and at least two pipelines designed to transport oil from the western coast of Florida to the eastern coast and from oil fields in Mississippi to either Savannah, Ga., or Charleston, S. C.

The bill passed the Senate on July 17 after Vice-President Wallace had broken a tie vote of 30 to 30 with 36 senators not voting. Senators Bailey, Democrat of North Carolina and chairman of the commerce committee, and Vandenberg, Republican of Michigan, led the fight to eliminate the barge canal feature of the bill. Both made strong pleas to the effect that this is no time to expend huge amounts of money and the energies of workmen to construct a canal which would take at least three years to complete when the country is fighting for its life.

Senator Pepper, Democrat of Florida, led the proponents of the measure, and declared that the canal was necessary to insure oil for the east coast and to protect the lives of our seamen from the attacks of submarines.

Director Eastman, of the Office of Defense Transportation, has appointed James C. Richdale, of Melrose, Mass., as consultant to the ODT on matters relating to liquid fuel supply for the New England area.

Would Have Government Pay Furlough Travel Expense

Representative Collins, Democrat of Mississippi, has introduced in the House H. R. 7401, a bill to provide that enlisted members of the armed forces stationed in the United States shall be granted furloughs once each six months at government expense. The bill specifically provides that travel expenses to and from such member's home shall be paid by the government.

Ickes Names Railroad Man to Coal Committee

Frank C. Lathrop of San Francisco, Calif., retired Southern Pacific officer, has accepted appointment as a member of the Solid Fuels Advisory War Council, according to an announcement by Harold L. Ickes, Coordinator of Solid Fuels for War.

Mr. Lathrop will be one of the two representatives of the general public on the war council and fills the vacancy created by the resignation earlier this year of Louis J. Brann, of Lewiston, Me., former Governor of Maine.

Contract Carriers and OPA Maximum Price Regulations

The Interstate Commerce Commission in orders by Chairman Aitchison has authorized contract carriers by motor vehicle and by water to publish upon one-day's notice changes in their maximum rate schedules which may be necessary to meet the requirements of the Office of Price Administration's general maximum price regulation. The latter, which is now set up to become effective August 1 insofar as it applies to transportation (rates of railroads and other common carriers are exempt), prohibits charges higher than the highest charges made for the same services during March, 1942.

The orders were accompanied by a notice from I. C. C. Secretary W. P. Bartel, advising the contract carriers involved as to procedures for obtaining permission to maintain charges higher than the OPA regulation would otherwise permit. Petitions in that connection may be filed with OPA whenever the OPA regulation requires the observance of a maximum charge lower than that imposed as a minimum by an effective order of the I. C. C.; or whenever the contract carrier considers the facts justify a higher maximum basis than prescribed by the regulation. As noted in the *Railway Age* of June 27, page 1247, the I. C. C. and OPA recently agreed upon a "working arrangement" designed to avoid any conflict between I. C. C. regulation of contract carrier minimum rates and OPA control over the maximum rates of such carriers.

Roads Will Continue To Make the Grade

I.C.C. Commissioner Johnson confident of their ability to meet war demands

Confidence in the ability of the American railroads to continue meeting wartime transportation demands was expressed by Col. J. Monroe Johnson, member of the Interstate Commerce Commission, in a roundtable radio discussion in Washington, D. C. on July 24. The discussion was the first of a series of 10 weekly programs on "The Lines Behind the Lines—the Story of Railroads in War."

"As the war progresses," Col. Johnson declared, "war production must and will increase. Our armed forces will tremendously increase in number. This will still add to the already gigantic transportation burden of our railroads, requiring increased effort by the railroads and those who run and use them. Railroad men recognize that their approaching battle will be stupendous. I have grown to have every confidence in these men, and, in my opinion, the railroads of America will perform their tasks so well that they will reestablish themselves in the minds of the people of America as indispensable to the welfare of the nation."

After characterizing the railroads' record of performance since Pearl Harbor as "unequalled in transportation and other human achievements," Col. Johnson said that the accomplishments of the railroads are due to plans and preparations started 20 years ago and to better use of the railroad plant by both the railroads and their patrons. "Never before have I encountered such cooperation as exists among railroads, between railroads and the shippers and receivers of freight, and between railroads and the government," he commented. "All realize that they have a definite and vital responsibility in the maintenance of adequate transportation, without which victory would be impossible."

During the radio forum, A. F. Cleveland, vice president in charge of the Traffic Department of the Association of American Railroads, told how five and a quarter million troops and their equipment have been handled in organized movements by the American railroads in the first half of this year. Mr. Cleveland also pointed out that, in connection with serving the government, the railroads have worked out arrangements whereby there will be no obstruction to the steady flow of military goods from the points of production to the points of use.

As an example of this, he cited the broad privilege of quickly diverting a loaded car

so that it can go anywhere to meet an unpredicted military need.

Holcombe Parkes, assistant to the president of the Southern, said that the railroads are now moving 70 times more petroleum and its products into the East than they did a year ago, and, during the first 28 weeks of this year, hauled 3,200,000 more tons of coal into New England than they did during the corresponding period of 1941.

"Besides furnishing the essential mass transportation," Mr. Parkes concluded, "the railroads are making other contributions to the war effort. For instance, they are conserving critical materials by such things as standardization, substitution and salvage. They are gathering useable scrap of all sorts, and, in addition to reclaiming and restoring it to service on the railroads, they are making it available to other industries. Shops on a score of railroads are manufacturing direct war materials for the government, and are turning out parts for such things as naval gun mounts and airplane engine mountings."

Interviewing Messrs. Johnson, Cleveland and Parkes was Albert R. Beatty, manager of the A. A. R. Publicity Section, who is in charge of arrangements for the series of broadcasts.

Southern Pacific Again Asks to Import Mexican Laborers

The Southern Pacific Company has petitioned Washington authorities for permission to import Mexican track workers temporarily, to fill vital labor shortages. A similar request was refused by the Immigration Bureau of the Department of Justice in September, 1941. Recently the Southern Pacific has attempted to secure laborers from the ranks of unemployed negroes in Southern states, many of whom accepted free transportation to points in New Mexico, Arizona and California and then sought other employment. The railroad has recently agreed to return more than 1,000 sick and minor negroes who, as a result, have become stranded in California.

ODT Rail Division Appointments

Raymond B. Croll and A. N. Pelnar have been appointed deputy assistant directors of the Division of Railway Transport, Office of Defense Transportation, the former with headquarters at Chicago and the latter at New York. Mr. Croll was until recently superintendent of transportation of the Chicago Great Western, while Mr. Pelnar, a former general superintendent of freight terminals of the Chicago & North Western, has been with ODT since May, serving as rail terminal supervisor at Philadelphia, Pa.

ODT Traffic Study

The Office of Defense Transportation has completed the coding and classification of more than 125,000 freight waybills in the nation-wide traffic study which began on May 27 when all railroads originating a carload freight shipment on that date were asked to send copies of the billing to ODT. The task of preparing the information on the billing for the car punch process, and a later, more detailed study, took almost five weeks, and required a staff of 50 analysts.

Eleven Eastern railroads loaned 28 analysts to the ODT at no cost to the government other than a per diem to cover expenses in Washington. Six others were loaned by the Interstate Commerce Commission. When finally completed, the study of the billing is expected to give an accurate picture of the direction and flow of virtually every commodity moving in commerce on that day. "The information will provide a factual basis upon which conclusions may be drawn as to adjustments needed to meet increasing transportation demands," ODT said.

Amend Storage-in-Transit Rules

Director Eastman, of the Office of Defense Transportation, announced on July 18 that transcontinental railroads have agreed to amend their storage-in-transit arrangements on eastbound canned goods to permit shipments originating in both North Pacific areas and South Pacific areas to be consolidated in movement from the storage-in-transit points. The agreement followed a joint request by the War Department, Department of Agriculture, and ODT.

"These storage-in-transit arrangements," the ODT announcement said, "are necessary because much of the space formerly used for canned goods storage on the west coast is now needed for military purposes. At the same time, it is the express purpose of ODT to encourage the movement of the canned goods pack from Pacific Coast areas to interior points close to ultimate consumption before late fall. Otherwise refrigerator cars would have to be used to protect the shipments against freezing. It is expected that private purchasers will follow the lead of the War Department and the Department of Agriculture in arranging necessary storage facilities for this season's pack at distributing centers close to consumption areas so that the use of refrigerator cars will be held to a minimum."

I. C. C. Sets Up Control System for Grain Shipments

Service Order No. 80 has been issued by the Interstate Commerce Commission to set up for the handling of the 1942 grain crop a permit system under control of agents of the commission located at the principal grain markets. The order became effective July 22 and will remain in effect until December 31.

The commission acted upon advices from the Secretary of Agriculture and the Office of Defense Transportation to the effect that, due to inadequate storage space, "there is great danger of loss and damage to the 1942 grain crop unless preference or priority in transportation is invoked." Under the order railroads are prohibited from moving grain into the designated markets except upon permits issued by the commission's agents. The permit system will be in effect at Buffalo, N. Y., Chicago, Omaha, Nebr.-Council Bluffs, Iowa, Kansas City, Mo.-Kans., St. Louis, Mo., Belleville,

Scrap Tour a Success

"Highly gratifying" results in stimulating interest of the railroads in increasing their collection of scrap needed by war industries and also in the production of relay rail required from railroads by the Army, Navy, Maritime Commission and the defense plants and industries were obtained during the tour of the country's railroads which was made by the railroad salvage section of the War Production Board, beginning in New York on July 6 and winding up in San Francisco, Calif., on July 13 and Dallas, Tex., on July 18, it was announced in Washington on July 20.

The five conferences were attended by 378 persons consisting of 295 executives and other officers of 177 railroads, 55 representatives of the War Production Board, Office of Price Administration and the Army and Navy—together with 26 other visitors. Of the railroad representation, 60 officers of 43 roads attended the conference at New York, 40 officers of 22 roads attended the conference in Atlanta, Ga., 106 officers of 74 railroads registered at Chicago, while 42 officers of 17 roads were present at San Francisco and 47 officers of 21 roads were present at Dallas. All conferences were extensively publicized in the newspapers of the cities in which they were held. Accounts of the meetings in New York and Chicago were presented in the *Railway Age* of July 11 and July 18.

At San Francisco, W. M. Jeffers, president of the Union Pacific, who presided over the conference in that city, was accompanied by the chairman of the executive committee and a member of the board of directors of the railroad and announced that he was making a personal inspection of every mile of the railroad to hasten the movement of steel scrap to the mills, and reported that the scrap which he had already uncovered indicated that the Union Pacific alone would send more than 250,000 tons of the strategic metals to the mills this year—or an increase of approximately 100 per cent over the tonnage of the preceding year. "There are millions of tons of scrap in the abandoned tracks and obsolete equipment lying about the railroads of the country," he said, "and we are not only gathering this scrap but also salvaging usable rails which are needed for military tracks."

At Dallas, Tex., Mathew S. Sloan, president and chairman of the board of the Missouri-Kansas-Texas, who presided over the conference, stated that the government must have scrap and rails and is going to get it, and appealed to the railroads to "start right from this meeting room to do the job."

Ill., East St. Louis, Cahokia, Granite City, Madison, Alton, Minneapolis, Minn., St. Paul, Duluth, Minn., Superior, Wis., and Itasca.

The agents selected are members of grain permit committees, voluntary groups set up at each market. In issuing permits for the movement of grain into a market for storage, they are to give first consideration to grain "in the gravest danger of damage or loss." Likewise in issuing permits for the movement of "cash grain" the agents are to do it first on the basis of the danger of damage or loss, and on the basis "of supplying the needs of that particular market, and the needs of dealers, processors, or distributors customarily dependent on that market for their supply of grain." The total number of permits to be issued "shall be limited to the capacity of the market to handle and release cars without undue delay or detention and so as to avoid congestion and traffic." They may be issued on the agent's own initiative or upon application by a shipper, receiver, buyer, or his authorized representative, to the grain permit committee.

Express Agency Is Looking for Horses

The Railway Express Agency has donated all the advertising space on its fleet of 15,000 motor vehicles (formerly sold commercially, as well as used by the Agency itself) to the armed services, the Treasury, the Civilian Defense Office and the Red Cross. As a further contribution to the war effort, the Agency is canvassing the situation regarding the possible use of horse-drawn vehicles, in order to save tires and gasoline. It has been a pioneer in the use of synthetic rubber tires—having purchased 52 thereof in 1940 for test purposes. These have turned out well—some of them having run in excess of 20,000 miles without recapping, and one having done over 35,000 miles before recapping became necessary.

At the time of the last war, it has been revealed by N. P. Ballou, assistant to the president of the Agency, the Express Company owned about 15,000 wagons and 20,000 horses. To take care of the greatly increased volume of business that required expedited service during World War I, the company hired from contract draymen hundreds of additional wagons and horses. Today, the company is faced with the same problem of providing the greatest possible speed for a greatly increased volume of shipments essential to the war effort. For the first five months of 1942 its rail express has increased 24 per cent and its air express 97 per cent.

The canvass for horse-drawn equipment developed that of its former great horse-drawn fleet the company has only six wagons and three coaches reserved as museum pieces. The available supply of horses, harness and wagons is naturally limited and the present shortage of gasoline and tires is causing that supply to be seized. Manufacturers of wagons are very limited. Manufacturers of harness have turned to other fields and some of the former great ones have even lost their specifications. So far the company has been able to find only three manufacturers in the entire country capable of making horse collars and in many places the possibilities of having the horses shod is problematic. It was recently stated that only one horse shoer remains on Manhattan Island.

The change of the Express Company's great fleet to motors began before the last war with electrics and by December, 1932, its last horse-drawn vehicle disappeared from the streets of New York. This was brought about by the greater availability of trucks, and was accelerated by city ordinances prohibiting the maintaining of horses in many districts and some cities even forbade the use of solid tires used on the electrics.

In order to prolong the usefulness of its vehicles the Express Agency is withdrawing from the scrap heap electrics of War I vintage.

ODT Bus Orders

Two more special orders requiring intercity bus companies to coordinate operations in the interest of eliminating duplicate services and facilities have been issued by the Office of Defense Transportation. They are Special Order ODT B-7 which affects the operations of the Short Line and Pennsylvania Greyhound Lines, affiliate of the Pennsylvania, between Philadelphia, Pa., and Rehoboth Beach, Del., and between Philadelphia and Salisbury, Md.; and Special Order ODT B-8 which covers service operated between New York City and points in Ulster and Sullivan Counties, N. Y., by Royal Cadillac Service and Crescent Express Lines.

At the same time ODT announced an amendment to Special Order ODT No. B-5, extending its scope to cover all points common to the lines of Atlantic Greyhound Corporation and Carolina Coach Company. All of these special bus orders have been based on plans for joint action submitted by the carriers involved.

Buford Calls for More Efficient Use of Company Service Cars

Noting that "an important source of additional car supply lies in reducing to the minimum the use of serviceable freight cars for company service," C. H. Buford, vice-president of the Association of American Railroads, has submitted to chief operating officers of A. A. R. member roads specific recommendations on the matter which were adopted recently by a committee of stores and transportation officers. The recommendations are as follows:

1. Purchase, Stores and other interested departments should cooperate in placing orders and loading cars to accomplish:
   a. Direct routing, shortest haul.
   b. Capacity loading.
   c. Minimum number outbound shipments.
2. Less than car load shipments of company material must either be consolidated or handled through freight houses, the same as commercial l.c.l. Trucks should be utilized to the fullest extent possible in handling less than car load quantities of material by shops, storehouses and freight stations and other points within terminals. If railroad owned trucks are not available a pick-up and delivery service by an outside agency should be employed to avoid the use of cars in such service. This process will also reduce switching.
3. Company material (other than company fuel) at destination must be placed promptly and unloaded within 24 hours after arrival.
4. Coal chutes, coal storage and fuel oil storage tanks should be kept filled to maximum capacity at all times in order to release cars promptly. Consideration should be given to storing coal on ground and for providing storage facilities for fuel oil.
5. All departments receiving company materials should furnish yard masters placement orders for cars of company material in advance to enable them to classify and place cars without unnecessary switching and detention at destination.
6. Empty cars for loading company material should not be ordered until materials are ready for shipment. Billing should be furnished promptly to avoid delay and unnecessary switching.
7. At transfer, freight sheds and other places where it is necessary to use rubbish cars, only such equipment that is not suitable for transportation service should be selected.
8. Do not use cars for accumulation of scrap. Bins and storage space should be provided for that purpose.
9. Members are urged to immediately determine if they are obtaining the maximum utilization of non-revenue cars assigned to company material service with a view of reducing the use of revenue cars in company service.
10. Member roads should make every effort to see that company material is handled with the minimum number of cars and locomotives.

"In view of the records being made by shippers and receivers in reducing detention in loading and unloading of cars, any excessive holdings by railroads of company freight in revenue cars is not only inconsistent, but inexcusable," Mr. Buford said. "A systematic and successful campaign has been conducted with the public, on the principle that freight cars must not be used for storage purposes, and it is imperative that railroads do not permit practices that are below the standard set for the public.

"A further important point in connection with car conservation is the use to the maximum extent of cars least in demand

All Advertising Space on Express Trucks Has Been Donated to War Agencies

by public transportation service. At present, open top cars are actively required for military movements and increased production of heavy manufacturing for war purposes; therefore it is suggested that whatever supplies can be loaded in box cars, even at slight inconvenience, these be used in place of open tops. Such items as tie plates, angle bars and miscellaneous material of smaller size frequently are unnecessarily loaded in open top cars."

ODT Again Chides Thoughtless Government Travelers

Because its previous suggestions in that connection have been largely disregarded, the Office of Defense Transportation last week again called upon all federal government agencies to make their travel reservations well in advance and to cancel promptly when the reservations cannot be used. ODT has found that many government officials still wait until train time to pick up their reservations, and fail to cancel upon learning that their plans must be changed.

Its previous suggestions, it said, "have been disregarded to such an extent that we felt it necessary to ask the Pullman Company to submit a list of violations, which we are handling with the head of each agency." The report from Pullman is understood to have shown 450 such violations.

Nelson Studying Problem of Cargo Planes

Donald M. Nelson, chairman of the War Production Board, said on July 21 that he is making an intensive study of the "enormously complicated" problem of the cargo plane and its possible future use in the war program of the United Nations. A report on the cargo plane was made to Mr. Nelson last week by a special committee he appointed June 2.

Mr. Nelson advised against undue optimism about the possibilities of immediate construction of cargo planes of any new type. He added that men, machines, facilities and materials could not be made readily available for any new cargo plane program, beyond the program now under way, except at the expense of other parts of the war effort. Moreover, it would take a considerable time to get substantial numbers of planes of any kind not now in production.

Mr. Nelson was said to be giving attention not only to proposals to build a fleet of large ships, but also to the possibility of enlarging the present program for smaller cargo ships which are already in production and on which the necessary production engineering has been done.

Civil Airlines to Increase War Operations

The civil airlines of the country will undertake "vastly increased international operations" under the Air Transport Command, Army Air Forces, according to a War Department announcement. In a meeting with air carrier executives, Brigadier General Harold L. George, Commanding General, Air Transport Command, asked them to extend their operations immediately to take care of mounting air transportation problems of the war program. Routes will be strengthened and extended, carrying personnel, material and mail throughout both hemispheres, it was pointed out.

Under this plan, it was noted, substantial numbers of additional aircraft will be assigned to the airlines by the Army Air Forces, beginning in August. This action, declared the announcement, means that the Air Transport Command intends to utilize the airlines to the limit of their capacities. If the program does not fully utilize the available facilities of any individual carrier, it was further emphasized, this company will receive an opportunity to expand its service to the full extent of its available facilities. The announcement also said that the program involves no present reduction in scheduled airline services.

More Abandonments for Scrap

Abandonment of branch lines for rail and scrap proceeded at a fast pace, as the move of the War Production Board in requisitioning rail and other metal, from the Chicago & North Western's 102-mile line between Hastings, Neb., and Linwood, as reported in the *Railway Age* of July 18, was followed in rapid succession by settlement on July 20 of three other abandonment cases totaling 176 miles. On that date, a three-man court at Chicago overruled an Illinois Commerce Commission ruling and upheld an Interstate Commerce Commission order, permitting the Chicago & North Western to proceed with the abandonment of its 28-mile line between Sycamore, Ill., and Caledonia, and to use the material for facilities at government military camps and munitions works.

On the same day, J. L. Beven, president of the Illinois Central, reported that WPB had requisitioned track and bridge material from a 57-mile branch line of the Illinois Central between Red Oak, Ill., and Dodgeville, Wis., and that the line would cease operation on July 25.

Also on the same day, it was reported that WPB had requisitioned the material from a 91-mile line of the St. Louis San Francisco between Fayetteville, Ark., and Ft. Gibson, Okla., which was scheduled for an application for abandonment before the I. C. C. on July 20.

With respect to reports in Washington this week that the War Production Board had reconsidered its recent action requisitioning rail and other metal from the Chicago & North Western's 102-mile line between Hastings, Nebr., and Linwood, it was stated at WPB that it had merely been decided to put off taking up the rail until grain is moved from elevators along the line. Dismantling work is expected to begin by the end of this month.

As noted in the *Railway Age* of July 18, page 110, the C. & N. W. application to abandon the line was approved by the Interstate Commerce Commission last year, but the effective date of the commission's order has been postponed from time to time while the Nebraska State Railway Commission has carried on a court fight against the abandonment.

Materials and Prices

Following are references to orders of interest to railroads, issued by the War Production Board and the Office of Price Administration since July 12.

Gasoline—The 50-mile border zone in which gasoline sales were to be restricted was removed from the new gasoline rationing plan in an amendment filed July 13 by OPA. Rationed motorists must not include estimated mileage to be driven in the 50-mile zone when applying for any supplemental fleet and service rations.

Priorities—An amendment to WPB Regulation No. 1, effective July 14, delegates priority powers of the Chairman of WPB to the newly created office of the Director General for Operations. These powers were formerly delegated to the Director of Industry Operations. The functions of the Division of Industry Operations were placed under the Director General for Operations. Powers include both authority to issue priority orders and regulations, and power to delegate rationing authority with respect to specified areas or commodities to OPA.

Priority orders—A series of supplements has been issued to be used with the revised edition of a printed compilation of priority orders and forms called "Priorities in Force," dated to May 31, 1942. Supplement one lists priority actions from June 1 through June 10; supplement two lists priority actions from June 11 through June 24; supplement three adds to the revised publication the orders issued during the period from June 25 through July 8.

Prices

Copper scrap—Amendment No. 1 to Revised Price Schedule No. 20, issued July 17, reduces maximum prices for 13 classifications of copper-alloy scrap as follows—Bell metal to 15.50 cents a lb. from 15.75 cents; high-grade bronze gears to 13.25 cents from 13.50; babbitt-lined brass bushings to 13 cents from 13.25; aluminum bronze gears to 9 cents from 9.25; soft red brass (No. 1) to 9 cents from 9.25; soft red borings (No. 1) to 8.75 cents from 9; yellow brass castings to 6.25 cents from 6.75; automobile radiators to 7 cents from 7.50. The reductions were made to bring scrap prices more in line with electrolytic copper and with the proposed new price schedule for brass ingot. Present reductions are less than the contemplated reductions in brass ingot.

Lumber—Maximum Price Regulation No. 19, effective July 18, establishes dollars-and-cents maximum prices for lumber produced from shortleaf yellow pine not previously subject to specific ceilings, as well as to lumber produced from longleaf yellow pine, which up to the present has been priced under the general maximum price regulation. Almost all southern pine lumber production is now subject to specific dollars-and-cents prices. Formulas for determining maximum prices are provided for the relatively few items not covered by specific ceilings.

Machine tools—Amendment No. 12 to Revised Price Schedule No. 67, issued July 17, permits makers of new machine tools to enter into contracts and make deliveries at prices above established maximum levels while awaiting formal rulings on petitions filed with OPA when they seek increased prices. The purpose of the amendment is to eliminate possible delays in entering into the production of critically needed machine tools and extras. Upon the filing of a petition requesting an increase in price, the maker of new machine tools may enter into contracts for and make deliveries of tools at the increased prices requested in the petition without awaiting approval of the petition by OPA.

Paint—Effective July 16, maximum prices for chrome yellow, chrome green, molybdate orange and zinc yellow color pigments, which were reduced by amounts varying from a quarter of a cent to a half cent a lb. by the general maximum price regulation, have been allowed to return to the levels of April 1, 1942. Restoration of the maximum prices was contained in Maximum Price Regulation No. 180.

Ventilator materials—Order No. 30 of the General Maximum Price Regulation, effective July 14, schedules maximum prices for a new composition duct material for use in ventilating systems, which will replace needed metals. The new product, developed by the Chrysler Airtemp Sales Corp., will be used for conducting air in heating and cooling systems.

GENERAL NEWS

Transport Board Gets $500,000

Congress attaches "that's all" stipulation which Barkley says means nothing

The Transportation Board of Investigation and Research will get for the fiscal year ending June 30, 1943, $500,000 plus its unexpended balances as of June 30, 1942—a total of $643,330, but the appropriation finally came from Congress with a stipulation that "such total amount shall be so used as to complete the studies, investigations and reports authorized and required by part I, title III, of the Transportation Act of 1940." The appropriation is carried in the First Supplemental National Defense Appropriation Act, 1943, Congressional action having been completed on July 21 when the Senate adopted the conference report which had been approved by the House on the previous day.

If the stipulation were adhered to it would mean that the Board, whose life has been extended to September 18, 1944, would get no money for the last 15 months of its term, unless it ended the current fiscal year with an unexpended balance which it could get reappropriated. However, Senate Majority Leader Barkley, in agreeing to the stipulation which was insisted upon by the House, said that it "certainly cannot bind any future Congress, and it cannot even bind the present Congress, as every Senator knows, because before the expiration of the one-year period for which this appropriation is made, if Congress sees fit to appropriate more money it can do so."

Mr. Barkley was unable to understand why the House insisted upon putting into the bill "language of this kind . . . as if it had any meaning and effect." He suggested that it might be designed to convince boards or agencies "that they must not come to Congress in the future and ask for deficiency appropriations," but he went on to insist that "certainly it would have no effect on an appropriation made for the Board for the fiscal year 1944." Thus Mr. Barkley raised no objection to the provision, but he wanted the record to show that he interpreted it as not restricting Congress in the future from allowing appropriations "sufficient to enable the Board to function during the whole two-year period for which the President has extended its life."

Senator McKellar, Democrat of Tennessee, who was chairman of the Senate appropriations sub-committee which allowed the Board the $500,000—$228,000 more than the amount recommended by the Bureau of the Budget—conceded that Mr. Barkley "is undoubtedly correct with respect to the legal aspects of the matter." The Tennessean believes, however, that "the Board will make a full report within the amount of money provided."

The senators seem to have in mind none of the Board's specific assignments to make studies of the relative economy and fitness of carriers, public aids to carriers, and the impact of taxes on carriers; they think only of the study of interterritorial freight rates which Senator McKellar got the Board to take on when it was before his sub-committee for an appropriation last year. When he discussed the $500,000 appropriation, Mr. McKellar called it the provision "for interarea or interterritorial rate examinations"; while Senator Barkley mentioned the fact that both he and Senator McKellar come from the South, and thus they "know how important it is to bear in mind the question of rate discrimination, and all the things which enter into the equal treatment of certain sections of the country with respect to freight rates."

Hudson & Manhattan Fares

The Interstate Commerce Commission has reopened for further hearing the I. & S. No. 4394 proceeding involving the Hudson & Manhattan's petition for a 10-cent fare between Jersey City, N. J., and Hudson Terminal, N. Y. In its previous decision the commission authorized an increase from six cents to eight cents.

C. P. R. Opens Blood Clinic

The Canadian Pacific this month opened a blood clinic in the basement of its Angus Shops hospital, after more than 2,000 of its employees in the Montreal district, most of them workers in the shops, had volunteered to donate blood to the Red Cross blood bank. The clinic consists of a six-bed room with adjacent waiting and recovery rooms and a canteen. It will be operated two days each week, and it is expected that 25 to 50 donations will be taken each day.

June Operating Revenues 34.1 Per Cent Above Last Year

Preliminary reports from 88 Class I railroads, representing 81.5 per cent of total operating revenues, made public July 17 by the Association of American Railroads, show that those roads, in June, had estimated operating revenues amounting to $497,227,572, compared with $370,863,416 in the same month of 1941, or an increase of 34.1 per cent.

Freight revenues of the 88 Class I roads in June amounted to $400,438,063 compared with $305,740,582 in June, 1941, or an increase of 31 per cent. Passenger revenues totaled $65,724,478, compared with $37,714,464 in June, 1941, or an increase of 74.3 per cent.

Arnold Assails the Transportation Act

Assistant Attorney - General lays all manner of evil at measure's door

The Transportation Act of 1920, so says Thurman Arnold, Assistant Attorney-General, "guaranteed as a special privilege the return of 5¾ per cent upon the inflated value of railroad property. It has been estimated that the direct increase to the cost of living of the American people, due to the Transportation Act, was $4,500,000,000 a year in higher industrial prices, in the collapse of farm prosperity, in the location of industrial manufacturers in crowded centers near deep-water navigation at low rates."

"Today we find our industrial workers located on the rim of the nation, farther from the source of farm production and close to the bombing raids of our enemies."

Mr. Arnold's anathema of the Esch-Cummins measure was contained in a speech, printed in the Congressional Record of July 14 at the request of Senator Bone—and originally delivered last month at a testimonial meeting to the memory of the late Robert M. La Follette. Mr. Arnold honored the departed senator by castigating some of the measures and developments which the departed legislator had opposed.

The Assistant Attorney-General condemned the proposed merger of eastern seaboard truck lines. Failing to distinguish between natural monopolies—recognized as beneficial and subject to regulation as such—and those which are artificial and basically predatory, the speaker attacked railroad rate-making procedure.

"Another form of obtaining control of transportation services and which in my view is highly inimical to the war effort," he said, "is the conference or bureau method of making railroad rates and adjusting competitive transportation practices. Within these conferences usually one carrier is dominant. The others merely fall in line. All initiative in rate making is severely controlled." He decried the application of this alleged "method" to railroad rates and, still further, its application to truck rates.

"When you buy gasoline today," he went on to say, "you pay 2½ cents a gallon rail freight from Oklahoma, irrespective of where such gasoline is manufactured." He added that "transportation is vitally affected by a few powerful labor unions who at present are immune to the anti-trust laws." Continuing he said:

"The war is going to leave us with a vast production of planes capable of transporting freight by air. Prior to the war the movement to consolidate air transportation,

to buy up feeder lines, to prevent new lines from coming into a city where old lines were already established, was well under way. Those efforts are still continuing in this country. They will be all the more intense after the war. The process is very simple. First, you build an airport at municipal or state expense. Then you let an air transport company in. Then you keep out all other transportation companies in order to protect the financial structure of the first air transportation company.

"The theory is the same old theory against which La Follette so valiantly fought in the Transportation Act. It is the theory that we must not increase transportation facilities by permitting competition. Rather must we protect dividends of an established company against that competition. If this principle is followed in airplane transportation after the war we will close down and plow under our airplane factories in order to protect railroads and existing air facilities. And then we may give them the opportunity to repeat the crime that the railroads perpetrated under the Esch-Cummins Act.

"We face the greatest fight to control that new transportation by the same type of men who controlled it before. They are going to say that we must not disturb those who seek to dominate future transportation, because it will divert their minds from the war effort. They are going to say that we must bring no prosecutions during the war. Powerful newspapers are going to be behind them just as in La Follette's time. Nevertheless, this transportation fight is a fight we must not give up if we are to truly honor the memory of the man whom this memorial is dedicated."

Pullman to Sell Seats in Club and Lounge Cars

The Pullman Company announced on July 19 that because "wartime demand for passenger accommodations is now so great," seats in all of its club and lounge cars are reserved for sale at the same rates as for seats in parlor cars. "The selling of seats in club and lounge cars is in line with the policy to make the most efficient use of our transportation facilities," Champ Carry, executive vice-president of the Pullman Company, said.

Scott Brothers May Continue Some Dual Operations

The Interstate Commerce Commission has reversed a previous decision by Division 5 and now authorizes Scott Brothers, Inc., affiliate of the Pennsylvania, to conduct dual operations as a common and contract carrier to an extent which will permit the trucking company to continue its contract-carrier service in the handling of steel products for Joseph T. Ryerson & Sons Company from Jersey City, N. J., to points in New York and Connecticut within 90 miles of Jersey City. This contract-carrier service has been performed by the W. G. Corporation, a subsidiary of Scott; and the present report shows that Scott has agreed to dissolve that corporation and take over the operation itself.

Meanwhile, the commission points out that its finding in this proceeding is not to be construed as approval of other dual operations by Scott Brothers, Inc. In the latter connection, as noted in the *Railway Age* of February 28, page 462, the P. R. R. affiliate has been called upon by Division 5 to decide whether it wishes to continue its general operations under a common carrier certificate or under a contract carrier permit.

Commissioner Patterson noted a dissent, while Commissioner Johnson did not participate in the case.

Firemen's Wage Discussion Again Adjourned

The joint meeting in New York between committees representing the Eastern and Southeastern railroads and the Brotherhood of Locomotive Firemen & Enginemen for the discussion of union proposals for certain changes in bases for setting wage rates and eliminations of differentials was adjourned on July 16, after sitting three days, in order that members of the committees might attend the arbitration proceedings in Chicago on the vacation-with pay question. Discussions of the firemen's proposals will be resumed on August 5. The issues involved were outlined briefly in *Railway Age* of July 4, page 33.

Representation of Employees

Organizations operating through the Railway Employees' Department, American Federation of Labor, have been certified by the National Mediation Board as the duly designated representatives under the Railway Labor Act of machinists, boilermakers, sheet metal workers, electrical workers, and carmen, employed by the LaSalle Street Station, Chicago. The same decision extends the A. F. of L. coverage of power house employees and railway shop laborers to embrace all such employees, including building pumpers.

In another decision, the Board has certified the National Council of Railway Patrolmen's Unions, A. F. of L., as the representative of Ann Arbor patrolmen, including sergeants and bridge guards.

House Approves Transport Taxes

The House on July 20 passed and sent to the Senate H. R. 7378, the new tax bill for 1942, which includes two direct taxes on transportation. One tax approved by the House levies a 10 per cent charge on all transportation fares including seats and berths. Based on estimates submitted last year, this doubling of the present tax would yield something like $75,000,000 a year.

The other tax is a five per cent levy on all common and contract freight shipments with the single exception of coal which would be taxed at the rate of five cents per ton. The House ways and means committee, in reporting the bill, estimated that this tax would yield $252,900,000 a year.

Representatives White, Democrat, and Dworshak, Republican, of Idaho, protested in the House against the latter tax being levied on the cost of the freight and asked the committee to change it to a "flat tax levied on quantity and an ad valorem basis regardless of the distance transported." The Idaho congressmen had acted after they had received numerous complaints from shippers contending that the tax would place them at a disadvantage with competitors in other parts of the country. The committee refused to take any action on the request, so that if any changes are made, they will have to be made in the Senate.

The bill also reenacts that provision of the present law which permits railroads to buy in their securities below par and be relieved of an excess profits tax on the difference between the purchase price and par if they have first obtained from an appropriate government agency a certificate to the effect that they are in an unsound financial condition.

The carriers earlier in the year had appeared before the committee and urged that this provision be reenacted but that the requirement of a certificate of unsound financial condition be eliminated. It was the railroads' contention that few carriers had availed themselves of the opportunity to purchase their own securities below par because the obtaining of such a certificate jeopardized their credit.

Katy Speeds Up Car Rebuilding Program

A rebuilt freight car every 45 minutes or an average of 10 a day is now the output of the Denison (Tex.) car repair shops of the Missouri-Kansas-Texas. The increased output of rebuilt cars has been brought about largely by new methods, which include the use of a unit assembly system, in which the cars are moved along to the men, and which has been particularly effective in eliminating waste motion in the application of air brake pipes and fittings, doors, running boards, etc. Pneumatic tools are used as much as possible for sand blasting, spraying paint, drilling, bolting, etc. The new system of car repairs was adopted after careful study of modern shop methods, and is said to have increased production 50 per cent without increase in manpower.

Would Strike Down Proposed L.C.L. Proportional Rates

Because the railroads involved did not show upon the record that "the difference between the proposed rates and the local rates is justified by the difference in the respective conditions under which those rates would apply," Examiner G. H. Mattingly has recommended in a proposed report that the Interstate Commerce Commission require the cancellation of suspended schedules publishing "all-commodity" proportional l. c. l. rates from Memphis, Tenn., Jackson, Miss., and Meridian (break-bulk points) to points in Mississippi and Tennessee, on interstate traffic arriving at the break-bulk points by rail, in carloads, and reshipped within 48 hours after the expiration of the free time allowed on the inbound movement—a total of 96 hours.

The proposed rates would be on the basis of fourth class (55 per cent of first class), applying on all commodities, with certain exceptions, rated fourth class and higher. They were designed to obtain for the railroads freight forwarder traffic moving out of the break-bulk points "practically exclusively by motor vehicle." The examiner noted that the proposed rates were

"generally similar in character" to the motor "proportionals" struck down by the commission in *Chicago and Wisconsin Points Proportional Rates,* 10 M. C. C. 556, 17 M. C. C. 573. He noted also that they are in effect "distribution" rates which Part IV of the Interstate Commerce Act, enacted since the motor "proportionals" decision, authorizes carriers to publish for the use of forwarders and other similarly situated shippers. That sanction, the examiner went on, is, however, subject to the qualification that the differences between assembling and distribution rates "must be justified by a difference in the respective conditions under which they apply." As noted at the outset, that is the basis for the examiner's adverse recommendation. The proceeding is docketed as I. & S. No. 4774.

Withdraws Proposal to Establish Trainload Rate on Coal

Acting upon the request of the Illinois Central and the Chicago & Illinois Midland, the Interstate Commerce Commission has dismissed without prejudice the petition wherein those roads were seeking authority to establish a $1.30-per-ton rate for shipments, in minimum quantities of 2,500 tons, of bituminous coal from four Peabody Coal Company mines in the Springfield, Ill., group to three Chicago generating plants of the Commonwealth Edison Company. Examiner R. N. Trezise's proposed report, recommending favorable action on the petition, was noted in the *Railway Age* of June 20, page 1218.

The order dismissing the petition revealed that the commission had received from the railroads a letter requesting either that action or a holding of the proceeding in abeyance until the end of the war.

Asks Shippers to Specify Optional Equipment

The Mid-West Shippers Advisory Board has launched a campaign to have receivers of freight specify optional types of equipment which can be used, if the railroads are unable to supply the exact type of car ordered. In its request, which was prompted particularly by the tight situation in regard to the coal car supply, the board has asked its members to specify a gondola as an alternate where a hopper car is not essential to handle the materials being shipped and similarly, if a surplus of box cars exists, that such equipment be named as an alternate if such cars can be used. F. A. Schleifer, general chairman of the Mid-West Shippers Advisory Board, said that this action is being taken in co-operation with all the Middle Western railroads and members of the Mid-West Shippers Advisory Board and expected that the plan would soon be placed in effect on a national scale.

New Equipment Installed

Class I railroads put 48,769 new freight cars in service in the first six months of 1942, according to the Association of American Railroads. That total included 31,887 box, 14,398 coal, 1,370 flat, 265 refrigerator, and 829 miscellaneous freight cars.

New freight cars on order on July 1 totaled 39,530 compared with 92,566 on the same day last year. Class 1 roads had on order on July 1, this year, 16,023 box, 18,388 coal, 2,426 flat, 1,639 refrigerator, 280 stock, and 774 miscellaneous freight cars.

Railroads in the first six months of 1942 installed 365 locomotives, of which 148 were steam and 217 were electric and Diesel-electric. In the same period last year they put 261 new locomotives in service, of which 62 were steam and 199 were electric and Diesel-electric.

New locomotives on order on July 1 totaled 917, which included 350 steam and 567 electric and Diesel-electric. On July 1, last year, they had 559 new locomotives on order, including 265 steam and 294 new electric and Diesel-electric.

I. C. C. Hears Grounds for N. Y. Commutation Fare Increase

The grounds on which the railroads serving the large cities in New York request authority from the Interstate Commerce Commission to apply to New York intrastate commutation fares the 10 per cent increase granted earlier this year on interstate passenger fares were described at hearings before Commissioner Alldredge and Examiner Cummings at the St. George Hotel, Brooklyn, beginning July 20. As reported in *Railway Age* of February 28, page 461, the New York Public Service Commisson on February 24 denied a similar application made to it by the same railroads. Counsel for the State Commission, the New York City Transit Commission, and various local government units appeared at the I. C. C. hearing in opposition to the railroads' request, claiming that the I. C. C. lacks jurisdiction.

The hearings were adjourned after the railroad witnesses were heard and subjected to cross examination, and opponents' testimony and arguments will be presented later. The railroads principally concerned are the Long Island, the Staten Island Rapid Transit (B. & O. subsidiary), the New York Central, and the New York, New Haven & Hartford. Among the witnesses appearing for these roads were W. S. Franklin, vice-president in charge of traffic of the Pennsylvania and the Long Island; F. J. Wall, vice-president of the New Haven; E. E. Pierce, general passenger agent of the New York Central, and W. J. Filedora, traffic agent of the S. I. R. T.

Hill Denies Negro Discrimination on the L. & N.

J. B. Hill, president of the Louisville & Nashville, has written a letter to Representative Bender, Republican of Ohio, denying recent charges that his railroad had discriminated against certain negro soldiers by refusing to permit them to eat in a station restaurant in Bowling Green, Ky., and in a dining car, while enroute from Montgomery, Ala., to Cincinnati, Ohio.

The letter was written after Mr. Bender had made the charge in the House, which was based on the hearsay evidence of some ladies who were on the train, according to Mr. Hill. Mr. Hill's reply to Mr. Bender was inserted in the Appendix of the Congressional Record of July 21 under an extension of remarks of Representative O'Neal, Democrat of Kentucky.

Mr. Hill specifically denied the charges, saying that at Bowling Green the railroad has no restaurant and that the negro soldiers had an opportunity to eat in the colored section of a restaurant located about one-half block from the station. As to the alleged discrimination on the diner at Louisville, he declared that signed statements from colored waiters on the diner revealed that no negro soldiers asked to be served and that they also had an opportunity to be served a light lunch in the coach in which they were riding.

Freight Car Loading

Loading of revenue freight for the week ended July 18 totaled 857,067 cars, the Association of American Railroads announced on July 23. This was an increase of 1,943 cars, or 0.2 of one per cent, above the preceding week, but a decrease of 42,303 cars, or 4.7 per cent, below the corresponding week in 1941, and an increase of 126,607 cars, or 17.3 per cent, above the same week in 1940.

As reported in last week's issue, loadings of revenue freight for the week ended July 11 totaled 855,124 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading

For Week Ended Saturday, July 11

District	1942	1941	1940
Eastern	155,367	180,548	151,081
Allegheny	184,348	189,175	156,732
Pocahontas	54,219	55,494	50,761
Southern	115,103	113,566	93,980
Northwestern ...	147,176	146,801	121,865
Central Western.	129,190	134,173	113,153
Southwestern ...	69,721	56,385	49,211
Total Western Districts	346,087	337,359	284,229
Total All Roads	855,124	876,142	736,783
Commodities			
Grain and grain products	53,509	62,695	56,457
Livestock	10,348	10,177	11,627
Coal	158,821	147,464	127,371
Coke	14,344	13,577	9,949
Forest products.	51,033	44,255	31,015
Ore	94,037	81,175	69,633
Merchandise l.c.l.	88,795	154,133	146,080
Miscellaneous ...	384,237	362,666	284,651
July 11.....	855,124	876,142	736,783
July 4.....	753,855	740,359	637,169
June 27.....	853,441	908,604	752,647
June 20.....	844,913	885,539	728,493
June 13.....	832,726	862,974	712,921
Cumulative Total, 28 Weeks....	22,668,984	21,467,233	18,288,487

In Canada.—Carloadings for the week ended July 11 totaled 66,789, as compared with 63,128 for the corresponding week last year and 60,368 in the preceding week, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada	Total Cars Loaded	Total Cars Rec'd from Connections
July 11, 1942	66,789	37,122
July 4, 1942	60,368	37,319
June 27, 1942	67,336	35,804
July 12, 1941	63,128	26,554
Cumulative Totals for Canada:		
July 11, 1942	1,766,356	912,963
July 12, 1941	1,613,789	814,305
July 13, 1940	1,409,078	688,294

New Test for Color Blindness

A new accurate color perception test, used officially by both the Army and Navy, is available to railroads and other industries whose employees must have faultless color perception for safety and efficiency. It can be used to detect the four per cent of all males and one-half of one per cent

of females who are color blind, and to convince the victim of color blindness, who often is unaware of his condition.

Devised for ease of operation and universal application, the test outfit includes 46 plates, arranged so that malingerers are quickly detected and ordinary "blue and green cases of color blindness" may be discovered by using not more than two or three charts. The extent of the weakness of color perception is indicated by a single reading of several key plates. The tests can be given by anyone with the aid of an accompanying handbook. Further information may be obtained from the American Optical Company, Southbridge, Mass.

Six Months Export Traffic

Cars of export freight, other than grain or coal unloaded at Atlantic, Gulf, and Pacific ports in the first six months of 1942 totaled 388,724 cars, or an increase of 52 per cent compared with the same period in 1941, according to the Association of American Railroads. In the first half of 1941 there were 255,436 cars.

Cars of grain for export unloaded in the first six months this year at those ports totaled 16,594, compared with 24,476 or a decrease of 32 per cent. In the month of June alone, 74,145 cars of export freight other than grain or coal were unloaded at Atlantic, Gulf, and Pacific ports compared with 48,296 in June last year. Cars of grain for export unloaded in June this year at those ports totaled 1,799 cars compared with 4,230 cars in the same month last year.

This traffic is being handled "with no serious congestion, due to the continued cooperation of all concerned, particularly the steamship lines, exporters and shippers," the A. A. R. said.

Industrial Cos. Form Committee to Speed Scrap Collection

Formation of the American Industries Salvage Committee, representing groups of leading industrial concerns who are working with the Conservation division of the War Production Board to help speed the collection of vital scrap materials, has been announced by Robert W. Wolcott, chairman of the group and president of the Lukens Steel Company. Other members of the administrative committee directing the nation-wide $2,000,000 campaign are: Charles R. Hook, president of the American Rolling Mill Company, vice-chairman; R. S. Wilson, representing the Rubber Manufacturers Association; and O. E. Mount, representing the Steel Founders' Society of America.

The work of the committee, backing up a broad advertising program, will be twofold: to reach every manufacturing and business firm in the nation to impress upon them the absolute necessity of getting their scrap on the way to the production line; and, to get business men co-operating with the local salvage committees of WPB already set up in 12,000 communities. The activities of the committee will be closely co-ordinated with the present intensified scrap collection drive of the WPB.

The committee is undertaking an extensive national advertising campaign approved by the WPB, with a number of major industries underwriting the costs. The advertising being carried on in newspapers, magazines, farm and trade papers and on the air, focuses the spotlight of public attention upon the need for iron and steel scrap, non-ferrous metals, rags, burlap, rubber, tin cans (in some localities), and waste cooking fats. Supplementing contacts with industry already established by the Industrial Salvage division of WPB, the American Industries Salvage Committee will make a direct approach to individual industrial concerns, working through industry chairmen who are now being appointed. Leaders in fifty industries are being asked to serve as chairmen for their respective trades in a broad effort to see that every company appoints a salvage manager with authority not only to clean out production scrap, but also to junk obsolescent equipment and similar materials.

Pullman Will Continue Sleeping Car Business

In reply to reports that the Pullman Company was considering discontinuing its sleeping car business, David A. Crawford, president of Pullman, Inc., the controlling company of the Pullman organizations, declared on July 17, "Every research facility of the Pullman companies will be utilized in meeting postwar competition from aircraft, automobiles, and other media of travel.

"During the first six months of 1942, notwithstanding the difficulties of material supply and of production limitations placed by the War Production Board, Pullman invested about $12,500,000 of new money in adding 157 new lightweight sleeping car units to its fleet. I believe this is a larger number of new lightweight units than have been installed by all the railroads of the country. During the last 10 years of admittedly thin earning results in the sleeping and parlor car business, Pullman has nevertheless invested close to 80 million dollars of new money in that business. These facts certainly do not offer support for the existence of any definite policy of liquidation of that business."

Mr. Crawford also stated that although the company has about 3,000 fewer Pullman cars available, it is producing more passenger-miles in its travel service to the railroads, the general public, and the government than it did in the previous peak period of 1925-'29.

Engineers Standardize Rubber Classifications and Tests

A joint committee of the American Society for Testing Materials and the Society of Automotive Engineers for several months has been engaged in preparing standard classifications, specifications and tests for natural and synthetic rubbers.

The committee has reduced from several hundred to less than 100 the number of compound classifications, and has established physical properties, characteristics, and standard tests for each compound. The system of classifications, which cover 57 synthetic and 40 natural rubber compounds, is designed both to conserve rubber by enabling industries to select those compounds whose properties are known to meet the requirements of specific uses, and also to make effective use of alternative compounds. Since the classifications cover both natural and synthetic compounds, they will be suitable for use in both the present and post-war periods, and regardless of whether production of synthetic rubber is achieved on a large scale.

Synthetic rubbers are placed in three groups according to their general properties. Each classification is identified first by the letter "S," meaning synthetic; then by A, B, or C, depending on the group; and finally by numerals indicating the range of hardness, as measured by durometer, and the original tensile strength. Additional data indicate measurements of elongation and of compression set; changes

* * *

C. P. R. Shopmen Aid War Against Subs

The 100th naval gun produced at the Ogden Shops of the Canadian Pacific at Calgary was a gift to the nation by the shop employees, who paid for all material and shop costs and made the gun on their own time.

in tensile strength, elongation, and hardness after oven-baking; and changes after oil aging. Natural rubber classifications are denoted by the letter "R," followed by A for general purpose compounds; B for compounds meeting maximum compression set requirements; and C for compounds adapted to outdoor aging. Numerals indicate durometer readings and minimum tensile strength. Additional data show minimum elongation, 20 per cent load deflection, and compression set.

New England Summer Campers Ride in Coaches

In the first week of July this year the Boston & Maine moved 14,676 boys and girls to summer camps served by its lines. This is the largest number handled in recent years, and represents an increase over the same 1941 week of 16.7 per cent. The Maine Central moved 3,988 boy and girl campers in the same period, a slight decrease from last year. This decrease results from more campers leaving the trains at Portland because Pullman accommodations were not available for them this year. All of the campers were carried in coaches for the first time in the history of such operations, and special schedules were worked out so that cars bound for a given district could be moved together in daylight hours in long trains of coaches from New York or Boston to the northern New England points. In previous years much of this business, particularly to camps in Maine, was handled in sleepers on overnight schedules.

U. S. Steel Subsidiaries Granted Water-Carrier Rights

Passing upon applications filed by three United States Steel Corporation subsidiaries, the Interstate Commerce Commission, Division 4, has found one of them entitled to a "grandfather-clause" certificate covering operations as a common carrier by water while the other two were granted "grandfather-clause" permits covering contract-carrier operations. The title case is No. W-654, involving the application of the Isthmian Steamship Company, which got the common-carrier certificate covering the transportation by water of commodities generally between certain Atlantic and Pacific Coast ports, and between certain Gulf of Mexico and Pacific Coast ports, through the Panama Canal.

The contract-carrier permits went to Ohio Barge Lines, Inc., which is authorized to continue operations in the transportation of designated commodities between points on the Monongahela, Ohio, Cumberland, and Kanawha rivers, the Mississippi river below its junction with the Ohio, and the Gulf Intracoastal Waterway; and to the Warrior & Gulf Navigation Company, which is authorized to continue operations between points on the Gulf-Intracoastal Waterway, the Gulf of Mexico coast between Brownsville, Tex., and Fort Pierce, Fla., the lower Mississippi between Memphis, Tenn., and the mouth, and the Warrior and Tombigbee rivers between Port Birmingham, Ala., and Mobile.

Meanwhile, the commission found that operation by Isthmian as a common carrier, and of Ohio and Warrior & Gulf as contract carriers is consistent with the public interest and the national transportation policy. That finding was necessary under Part III of the Interstate Commerce Act before dual authority as common and contract carriers could be given companies, such as the applicants, which are under common ownership.

The majority report represents the view of Commissioners Porter and Mahaffie. Commissioner Miller, dissenting in part, would not have granted Isthmian authority to serve Hudson river ports, which "have never been served by applicant and which, contrary to the view of the majority, are not, in my opinion, on the route or routes usually traversed by applicant. The only port served by applicant in that state is New York."

N. Y. Commission Hears Reports on P. R. R. Late Trains

At a hearing in New York July 9 before Commissioner Bray, the New York Public Service Commission continued its proceedings against the Pennsylvania in the matter of on-time passenger service on the Buffalo and Williamsport divisions of that system. Summaries of certain monthly reports made to the commission by the railroad on the arrival time of trains at the New York terminals of these divisions, with reasons for delays, were offered in evidence. At the same hearing certain staff reports on sanitary conditions of passenger cars on the same divisions were introduced by stipulation. At the request of the railroad the proceedings were then adjourned to a date to be set in the fall, with the understanding that a study of passenger schedules on the divisions concerned, and of connecting trains on divisions outside of New York State, would be carried on in an effort to satisfy the commissions requirements.

The data on operations put on record at the hearing indicated that in the ten months period from August, 1941, through May, 1942, 51 per cent of 1,128 trains reported on the Williamsport division arrived late. The average of time late was 37 minutes. On the Buffalo division for the same period 33 per cent of 2,334 trains were reported late at terminals, and the average of time late was 34 minutes. On each division about 58 per cent of all late arrivals were ascribed to two causes, waits for connecting trains and delays at stations. A supplementary report for the Williamsport division for June, 1942, indicated that 61.6 per cent of trains were reported arriving late, with an average lateness per train of 33 minutes.

Names Emergency Board in Short Line Wage Dispute

William M. Leiserson, chairman of the National Railway Labor Panel, has designated from the panel a three-man emergency board to investigate the dispute arising from the failure of 34 railroads, mostly short lines, to make wage increases and vacations-with-pay agreements in line with the settlement reached last December in the general wage case. The emergency board, which will begin its investigation in the Federal Court House at Chicago on August 10, is composed of Walter P. Stacy, chief justice of the Supreme Court of North Carolina, chairman; W. H. Spencer, dean of the School of Business, University of Chicago, and Edwin E. Witte, professor of economics, University of Wisconsin.

The board is the first to be appointed in accordance with President Roosevelt's May 21 executive order which created the panel in order to provide wartime procedures whereby labor-management disputes in the railroad industry could be submitted to emergency fact-finding boards without the necessity for the taking of a strike vote among labor organizations involved. Judge Stacy was chairman of the emergency board which recommended against the railroads' 15 per cent wage cut proposal of 1938, while Dean Spencer has served as referee in National Railroad Adjustment Board cases.

Dr. Leiserson's announcement stated that originally 40 carriers were involved in the disputes, but settlements have been made recently in six cases. He added that 20 of the 34 carriers still involved are members of the American Short Line Railroad Association, and these will be represented at the Chicago hearings by C. A. Miller, vice-president and general counsel of the Association. The unions in these 20 cases will be represented by B. M. Jewell, president, Railway Employees Department, American Federation of Labor. The carriers involved are as follows:

Addison Miller Company; Alabama, Tennessee & Northern; Ashley, Drew & Northern; Atchison Union Depot & Railroad; Atlanta, Birmingham & Coast; Atlantic & Yadkin; Bangor & Aroostook; Burlington Refrigerator Express; Canton; Columbus & Greenville; Des Moines & Central Iowa; Detroit & Mackinac; Fruit Growers Express; Georgia & Florida; Huntingdon & Broad Top Mountain; Lackawanna & Wyoming Valley; Louisiana & Arkansas; Louisiana & North West; Market Service Association; Maryland & Pennsylvania; Merchants Despatch; Meridian & Bigbee River; Midland Continental; Minnesota Western; Mississippi Central; Missouri & Arkansas; New Orleans Public Belt; New York Dock; New York, Ontario & Western; Norfolk Southern; Quanah, Acme & Pacific; Rapid City, Black Hills & Western; Western Fruit Express; Wichita Falls & Southern.

I. C. C. Reports on H. & M. Derailment

The direct cause of the derailment on the Hudson & Manhattan at Exchange Place Station, Jersey City, on April 26, was excessive speed on a sharp curve, according to the official report of the investigation conducted for the Interstate Commerce Commission by Commissioner Porter.

The circumstances of this accident were outlined in *Railway Age* of May 2, page 873. When the six car multiple-unit rapid transit train eastbound from Newark, N. J., to Hudson Terminal, New York City, was derailed in the tunnel entering the Exchange Place Station, five passengers were killed and 188 passengers and three employees injured.

Approaching the station the grade for eastbound trains is descending for more than ¼ mile, varying in slope up to 3.5 per cent. The line is equipped with closely spaced color-light automatic signals arranged with one block overlap, and in addition some of the signals are provided with time control devices working through an intermittent mechanical-trip automatic train-stop system, designed to restrict train speeds in certain blocks. The train-stop

trip-arms within the station limits are also connected with the electro-pneumatic interlocking machine controlling the switches. The train was equipped with electro-pneumatic and automatic air brakes, and the motorman's controller handle was provided with a safety control through which the brakes apply automatically when pressure on the handle is released.

The train was moving at a speed variously estimated from 17 to 50 miles per hour when the first car was derailed on a Number 4 turnout, which has a curvature of almost 39 degrees. The maximum speed permitted by the rules at this point was 12.5 miles per hour, the maximum safe speed 19.8 miles per hour, and the overturning speed 39 miles per hour. Marks on the track indicated that the first car was not overturned, suggesting that the actual speed was between 19.8 and 39 miles per hour.

According to the motorman's testimony, when the train was running about 20 miles per hour at a point ¼ mile west of the station the electro-pneumatic brake system did not respond to a service application. He stated that as the train speed increased on the descending grade he placed the automatic brake valve in emergency position, but no material reduction of speed resulted. The brakes had functioned properly at the three station stops between Newark and the point of the accident, and in tests made after the accident responded properly to both the electro-pneumatic and automatic controls.

The Commission's report recommends that the railroad install time signals in the territory involved in this accident. If the signals on the descending grade west of the station "had been time signals under all conditions," it adds, "the train stop system would have caused the brakes of the train involved to become applied whenever the authorized speed between two signals was exceeded, and undoubtedly this accident would not have occurred."

The motorman involved is not otherwise censured in the Commission report, but he has been indicted in the local courts on charges of manslaughter and of operating a train while under the influence of liquor. The New Jersey Public Utility Commission in its report on the accident, based on practically the same testimony as the I. C. C. report, ascribed the accident directly to human failure, and ultimately to the supervisory employees of the railroad. In a reply to this report the Hudson & Manhattan stated that supervision and examination of employees on its trains leaving Newark was, under agreements between the H. & M. and the Pennsylvania, entirely the responsibility of the latter road. In addition, the H. & M. reply pointed out that from 1908 to the time of this accident the road had carried 2,710,013,586 passengers on more than twenty million trains without a single passenger fatality due to train operation.

Ex Parte 148 Intrastate Rates

The Interstate Commerce Commission has instituted investigations of refusals of the Idaho Public Utilities Commission and the Board of Railroad Commissioners of Montana to permit railroads operating in those states to bring intrastate freight rates on certain commodities into line with the interstate adjustment authorized in Ex Parte 148. The Idaho case is docketed as No. 28849, and the Montana case as No. 28855.

Equipment and Supplies

Car-Building Programs Advance Slowly Toward Completion

All but 2,102 freight cars of 35,760 authorized by the former Supply, Priorities and Allocations Board for construction subsequent to February 1 of this year have been delivered, according to reliable reports. Of the additional 18,000 cars authorized for construction by the War Production Board following its limitation order of April 4, 13,597 are reported to have been released and 1,604 delivered. Delivery of the cars remaining in these two programs will complete 1942 freight car construction as at present planned.

About 8,053 new freight cars were delivered in January which, added to the SPAB and WPB quotas, indicates that a total of about 61,813 new cars will be built this year. Actually, however, this number will be larger due to the construction of special cars not charged against either the SPAB or WPB quotas.

The reported allocation of 13,525 of the 18,000 freight cars in the WPB program divided according to railroads and builders was set forth in the *Railway Age* of June 20, page 1222. Details of the reported status of the car-building program as of July 1, 1942, are shown in the accompanying table.

Another 80,000 Cars?

Traffic estimates, which are creditably reported as indicating that the next carbuilding program should contemplate the construction of 80,000 freight cars, have been submitted by the Association of American Railroads to the Office of Defense Transportation. The proposal, which has not yet been reviewed by ODT for the purpose of framing its presentation to the War Production Board, would in effect be the 1943 program, following upon the building of the 62,000 cars authorized for this year by WPB and the former Supply Priorities and Allocations Board.

It might, however, get under way before the end of the year if there should prevail the view of some railroad officers who believe that employment in the carbuilding industry should be made continuous, thus making it possible to hold labor forces, by the placing of production schedules on a monthly basis. If that were done, production on whatever authorizations may come from WPB on the new A. A. R. proposal might begin this fall. In other words, the 1942 program would be completed by that time on the basis of the current rate of deliveries.

As noted above, there is no indication yet as to what, if any, modifications ODT may make in the railroad proposal; nor as to what WPB will do with what ODT sub-

Reported Status of Car-Building Programs as of July 1, 1942

	Contract Car-Builders	*Railroad Company Shops*	*Total*
Allocation of cars in original SPAB program:			
Automobile	1,100	1,152	2,252
Box	17,486	3,353	20,839
Flat	1,129	154	1,283
Gondola	2,375	971	3,346
Covered Hopper	500	50	550
Hopper	5,359	1,581	6,940
Tank	450	....	450
Caboose	100	....	100
Total	28,499	7,261	35,760
Number of cars in above SPAB program not yet delivered..	1,592	510	2,102
Number of cars in additional 18,000-car program of WPB which were released for construction:			
Flat	1,375	1,125	2,500
Gondola	2,326	2,690	5,016
Hopper	3,872	2,209	6,081
Total	7,573	6,024	13,597
Number of above WPB released cars not yet delivered:			
Flat	1,374	1,008	2,382
Gondola	2,016	2,494	4,510
Hopper	3,618	1,483	5,101
Total	7,008	4,985	11,993
Total backlog of cars on order and undelivered:			
Automobile	1,647	675	2,322
Box	8,608	7,268	15,876
Flat	1,374	1,128	2,502
Stock	....	200	200
Gondola	4,035	2,629	6,664
Covered Hopper	375	....	375
Hopper	13,590	4,504	18,094
Tank	326	....	326
Refrigerator	500	1,647	2,147
Others	1	....	1
Caboose	35	457	492
Total	30,491	18,508	48,999
Number of total cars on order which have not been released (see note)	21,871	12,308	34,179

Note: After deducting an additional 278 cabooses and 447 refrigerator cars not charged against SPAB program or additional program of WPB.

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A MILLION TONS OF FREIGHT ARE MOVED A MILE

. . . each minute of the day and night!

That's one measure of the railroads' present contribution to the national war effort—a fighting force of the first importance.

In the words of Mr. John J. Pelley, President, Association of American Railroads, "The railroad freight car is truly a weapon of war because it is the freight car, together with the locomotive which pulls it and the track on which it runs, that make possible all the other instruments of war. Without them, the whole war effort would collapse."

Lima-built Modern Super Steam Power Locomotives are serving the railroads from coast to coast in their gigantic task, helping them to make and to break all records in gross-ton-miles per train-hour.

LIMA LOCOMOTIVE WORKS LIMA LOCOMOTIVE WORKS INCORPORATED INCORPORATED, LIMA, OHIO

mits. WPB has not yet acted on plans submitted by the railroads some time ago for so-called composite freight cars designed to use more wood in their construction and thus conserve steel and other critical materials.

N. Y. Central Shops to Build War Equipment

The New York Central System has received an initial order for a special type of marine equipment to be produced in its own shops. For some time past the railroad has been exploring its shop capacity to develop the extent to which it might be employed in aiding the production of armaments. As a result, negotiations are now under way contemplating the manufacture of a wide variety of articles required in the war program forging gun barrels, anchor shanks and shackles; the machining of parts for combat tanks; the manufacture of forgings for marine engines; and spot welding aluminum plates.

"Two of the Central's shops in the midwest," said F. E. Williamson, president, "have been turned over completely to the War Department. One of these is now being used for training men of one of the Engineer Railway Shop Battalions recently called into service, which includes among its officer personnel some of the Central's best shop experts. Many of the enlisted personnel are also experienced railroad shopmen. Their numbers are being supplemented by draftees. This shop has been made part of a new Army camp, yet to be named.

"The second shop in the midwest has become an important depot for combat tanks. Through this shop large numbers of tanks, manufactured at various plants within the surrounding area, are channeled for final check just before they are sent on their way into service. A third shop in the East has been made available for the manufacture of reciprocating steam engines for Liberty cargo ships for the Maritime Commission."

Construction

CHESAPEAKE & OHIO.— This company has asked the Interstate Commerce Commission for authority to construct a branch line extending from a point of connection with the existing railroad of the Nicholas, Fayette & Greenbrier at Quinwood, W. Va., to the end of the branch, 5.3 miles.

ILLINOIS CENTRAL. — This company has awarded a contract to the Zitterell Mills Company, Webster City, Ia. for repairs and improvements to its shops at Cherokee, Ia., at an approximate cost of $50,000.

MISSOURI PACIFIC.—The Missouri Pacific plans to spend $174,100 on trackage improvements in North Little Rock, Ark., and $58,200 for similar work at Texarkana, Ark.

SOUTHERN PACIFIC LINES IN TEXAS AND LOUISIANA.—This company is constructing new yard tracks, lead tracks and crossovers in the westbound yard at Avondale, La., comprising 6½ miles of tracks and 36 turnouts. The grading contract for this work has been let to Boh Bros. Construction Company, New Orleans, La.

This company is also making a line change 2,240 ft. long on the main line between Crosby, Tex., and Sheldon, which includes the construction of 990 ft. of packed chord trestle. This work will eliminate a permanent slow order because of sharp curvature.

Supply Trade

Dan C. Hungerford has resigned as vice-president and director of the **Elastic Stop Nut Corporation**, Union, N. J.

William T. Sanford has been appointed service manager of the Railroad division of the **Buda Company**, Harvey, Ill.

Victor H. Lawrence has been appointed general superintendent of the Otis works of the **Jones & Laughlin Steel Corporation** at Cleveland, Ohio.

W. R. Dewey, plant manager, and **R. E. Spokes**, technical director, have been elected vice-presidents of the American Brakeblok division of the **American Brake Shoe & Foundry Co.**

The **Standard Car Truck Company**, Chicago, has acquired exclusive manufacturing and sales rights for the Bettendorf swing motion caboose truck and parts. It will now be known as the Barber-Bettendorf caboose truck.

L. E. Newell, chief experimental engineer of the Jeffery Manufacturing Company, Columbus, Ohio, has been appointed manager of engineering in charge of new designs of the Railroad division of the **Buda Company**, Harvey, Ill.

Edward B. Greene, president of the Cleveland Cliffs Iron Company and formerly a director of Otis Steel Company, Cleveland, Ohio, was elected a director of the **Jones & Laughlin Steel Corporation** when that company took over the Otis Steel Company.

Worthing H. Stone has been appointed assistant advertising manager of the **Timken Roller Bearing Company**, Canton, Ohio, in charge of advertising for the Railroad, Farm Implement, Automotive and Rock Bit divisions of the company. A graduate of Oberlin College, Mr. Stone became associated with Timken in 1936 as manager of the exhibit at the Great Lakes Exposition in Cleveland, Ohio, after which he became associated with the company's sales promotion work, specializing in the supplying of cooperative information to customers and to the general industry.

L. W. Brashares has been appointed manager of the Cincinnati district of the **American Rolling Mill Company**, Middletown, Ohio, and **E. D. Dronberger** has been appointed manager at Dayton, Ohio. **C. G. Farabee** has been appointed manager of the Chattanooga, Tenn., district and **G. C. Wilson**, manager of the Middletown district, has been given a leave of absence because of ill health.

George E. Monroe has been elected president and general manager of the **Kalamazoo Railway Supply Co.**, Kalamazoo, Mich., succeeding **Frank E. McAllister**, who continues as chairman of the board, but will confine himself largely to his personal interests. Mr. Monroe has been interested in the affairs of the Kalamazoo Railway Supply Co. for some time, and is prominent in banking and industrial circles in the vicinity of Kalamazoo.

George Lowe has been appointed supervisor, new business research, of the **Carnegie-Illinois Steel Corporation**, Chicago, with the responsibility for coordinating the entire company effort to give vigorous effect to further broadening and diversification of its business. Mr. Lowe was born in Chicago, on April 10, 1899, and graduated in civil engineering from Yale in 1921. Mr. Lowe's career includes early experience in construction, engineering, and reclamation work in central Illinois. He was subsequently executive vice-president of the Albany Park National Bank & Trust Co., Chicago, and for the past eleven years he has been sole distributor for The Stanley Works for all exports and middle Atlantic states sales.

OBITUARY

Chauncey O. Frisbie, who retired about a year ago as vice-president of the North American Car Corporation, with headquarters at Chicago, died suddenly at Philadelphia, Pa., on July 16.

John S. Hobson, western manager of the Union Switch & Signal Co., Swissvale, Pa., with headquarters at Chicago, and formerly president of the Massey Concrete Products Corporation, died on July 13 at Banning, Cal., after a long illness. Mr. Hobson was born at Kilkea, Ireland, on March 15, 1868, and was educated at the Institute of Technology and City and Guilds of London. He entered railway service in 1884 as an engineer apprentice with the Great Southern & Western Railway, Ireland, later coming to the United States. From 1889 to 1902 he served successively as a locomotive machinist, draftsman and signal inspector on the Chicago, Burlington & Quincy and in the latter year went with the Union Switch & Signal Company as an electrical construction foreman at Chicago. In 1896 Mr. Hobson became assistant signal engineer of the Michigan Central and, a year later, went with the Atchison, Topeka & Santa Fe as signal engineer. In 1901 he returned to Union Switch & Signal as assistant engineer, later being advanced successively to assistant general manager, general sales manager and general manager. In 1916 Mr. Hobson was appointed western manager, with headquarters at Chicago, which position he held until his death. In 1919 Mr. Hobson also became president and a director of Massey Concrete Products Company, serving in that capacity until 1938, when he became chairman of the board, retiring from the latter position in 1940.

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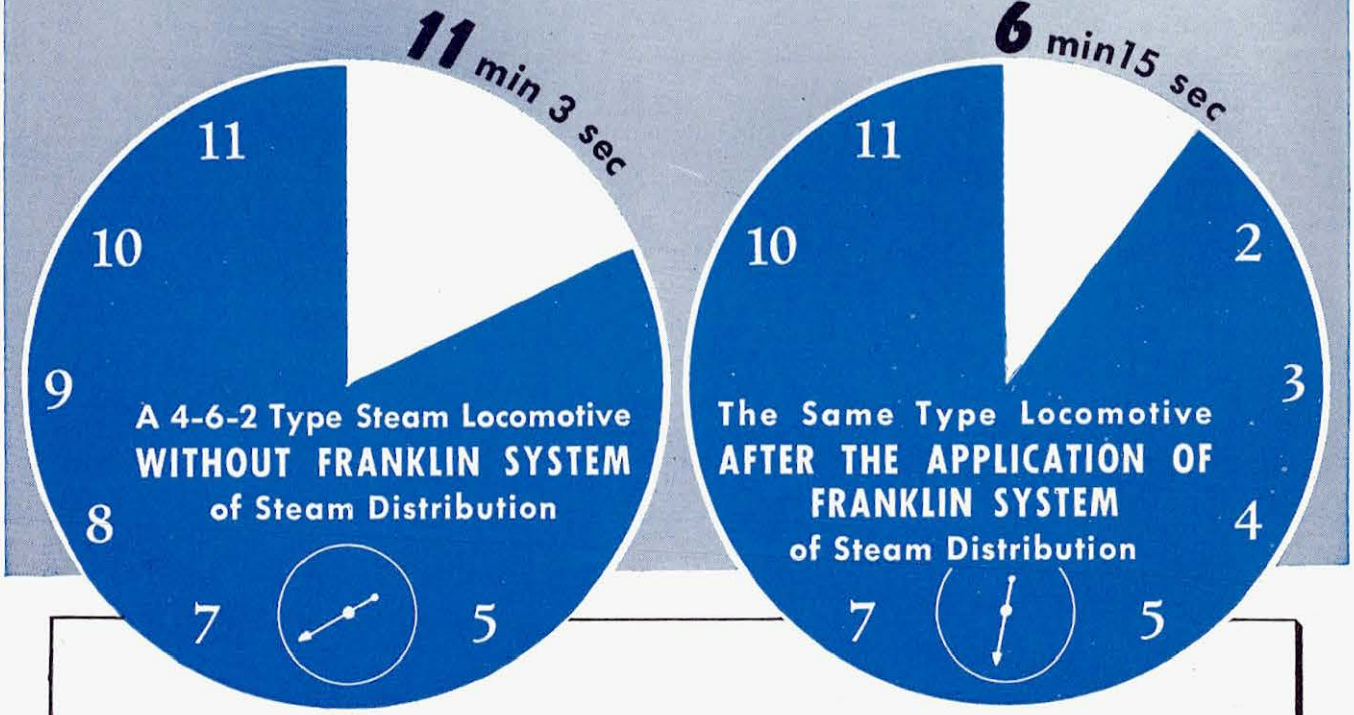
BACK TO ROAD SPEED IN HALF THE TIME



Time Required To Accelerate a 1,000 Ton Train From 40 mph To 75 mph on Tangent Level Track

The time required to get back to road speed after slow downs is dependent upon the power available for acceleration. The increased horsepower resulting from the Franklin System of Steam Distribution gives a higher margin of power to accelerate rapidly. It does this by releasing the latent power that has heretofore been unavailable due to the limitations of the piston valve. This greater power at higher speeds keeps trains on schedule.

FRANKLIN RAILWAY SUPPLY COMPANY, INC. NEW YORK CHICAGO

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

Financial

ATCHISON, TOPEKA & SANTA FE-ALTON. —*Joint Ownership and Operation.*—These companies have been authorized by Division 4 of the Interstate Commerce Commission to acquire an undivided one-half interest in and joint use of certain lines of railroad in Joliet, Ill., now owned separately by both companies.

BOSTON & MAINE.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Bedford, Mass., to Concord, four miles.

Abandonment by the Peterborough & Hillsborough.—The Peterborough & Hillsborough and the Boston & Maine, respectively, have asked the Interstate Commerce Commission for authority to abandon a line and the operation thereof extending from Peterborough, N. H., to Elmwood, 7.5 miles.

Abandonment by the Concord & Claremont.—The Concord & Claremont and the Boston & Maine, respectively, have asked the Interstate Commerce Commission for authority to abandon a line and the operation thereof extending from Hillsborough, N. H., to Emerson, five miles.

CHICAGO, BURLINGTON & QUINCY.—*Operation Under Trackage Rights.*—This company has asked the Interstate Commerce Commission to approve a plan whereby it would operate under contract over the main line of the Colorado & Southern from Utah Junction, Colo., to a connection with the Burlington's Chicago-Denver main line at C. & S. milepost 1.087, 2.3 miles.

CHICAGO & NORTH WESTERN.—*Equipment Trust Certificates.*—Division 4 of the Interstate Commerce Commission has approved a plan whereby this company will be permitted to substitute gondola, hopper, flat or box cars for equipment specifically called for in the equipment trust dated March 5, 1942. The company also asked authority to permit the trustee of the equipment trust to invest some $3,750,000 of the proceeds of the sale of the certificates in government bonds until such time as the equipment called for in the trust is available. Division 4 took the position that it was not necessary for it to authorize the investment in government bonds.

CHICAGO, ROCK ISLAND & PACIFIC.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a branch line extending from Deshler, Nebr., to Ruskin, 8.1 miles.

ERIE.—*Abandonment by the Elmira State Line and the Tioga.*—The Elmira State Line and the Erie, respectively, have been authorized by Division 4 of the Interstate Commerce Commission to abandon a line and the operation thereof extending from State Line Junction, N. Y., to the New York-Pennsylvania state line, 6.5 miles. At the same time the Tioga and the Erie, respectively, have been granted authority to abandon a line and the operation thereof extending from the New York-Pennsylvania state line to Tioga Junction, Pa., 13.5 miles. The Erie has also been authorized to abandon operation under trackage rights over the Northern Central (a P. R. R. subsidiary) from Southport Junction, N. Y., to State Line Junction, two miles.

In the same decision, Division 4 has denied that part of the application of the Erie's subsidiary, the Tioga, which seeks authority to abandon a line extending from Arnot Junction, Pa., to Hoytville, 11.8 miles. Commissioner Mahaffie dissented as to the latter action, saying that he would have granted the abandonment authority for the Hoytville branch.

In another decision handed down at the same time Division 4 authorized the Erie to acquire trackage rights over a line of the New York Central from Corning, N. Y., to Lawrenceville, Pa., 13.5 miles. At the same time the New York Central was authorized to acquire trackage rights over a line of the Erie extending from a connection with the New York Central's line at Lawrenceville, Pa., to Morris Run, 29.4 miles.

LAKESIDE & MARBLEHEAD. — *Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon that portion of its Bay Point branch line extending southerly from Marblehead, Ohio, to the end of the branch in Danbury Township, 2.3 miles.

NEW JERSEY & NEW YORK.—*Abandonment.*—This road has been authorized by the Interstate Commerce Commission, Division 4, to abandon the 2.15-mile section of its Haverstraw branch, extending "from a point 0.11 mile west of Stony Point Junction to the end of the branch at Haverstraw, N. Y."

NORTHEAST OKLAHOMA.—*Abandonment.* —This company has been granted authority by Division 4 of the Interstate Commerce Commission to abandon a branch line extending from Scammon, Kans., to the end of the branch at Cherokee Junction, 8.1 miles.

SOUTHERN PACIFIC. — *Abandonment by the Texas & New Orleans.*—The Texas & New Orleans has been authorized by Division 4 of the Interstate Commerce Commission to abandon that portion of its branch line extending northeasterly from a connection with its main line at Cade, La., to St. Martinville, 5.7 miles.

UNION PACIFIC.—*Abandonment by the Laramie, North Park & Western.*—The Laramie, North Park & Western, a wholly-owned subsidiary of this company, has been denied authority by Division 4 of the Interstate Commerce Commission to abandon its entire line extending from Laramie, Wyo., to Coalmont, Colo., 111.4 miles. Division 4 found that traffic on the line has "increased substantially and there is considerable doubt whether substitute transportation facilities will be available."

WESTERN MARYLAND. — *Abandonment.*— This company has asked the Interstate Commerce Commission for authority to abandon that part of a line extending from Keyser Junction, Md., to Keyser, W. Va., 0.4 mile.

Average Prices Stocks and Bonds

	July 21	Last week	Last year
Average price of 20 representative railway stocks..	26.48	26.36	30.65
Average price of 20 representative railway bonds..	64.35	64.21	65.80

Dividends Declared

Cleveland, Cincinnati, Chicago & St. Louis.—Common, $5.00, semi-annually, payable July 31 to holders of record July 21.

Louisville & Nashville.—$3.00, payable August 28 to holders of record July 28.

Louisville, Henderson & St. Louis.—Common, $4.00, semi-annually; 5 Per Cent Non-Cumulative Preferred, $2.50, semi-annually, both payable August 15 to holders of record August 1.

Wheeling & Lake Erie.—4 Per Cent Prior Lien, $1.00, quarterly; 5½ Per Cent Conv. Preferred, $1.38, quarterly, both payable August 1 to holders of record July 27.

Railway Officers

FINANCIAL, LEGAL AND ACCOUNTING

Robert C. Bannister, attorney of the Chicago & North Western at Chicago, has been granted a leave of absence to serve in the United States Navy.

John C. Shields, whose promotion to general counsel of the Pere Marquette, with headquarters at Detroit, Mich., was reported in the *Railway Age* of July 18, was born at Hancock, Mich., on November 12, 1884, and graduated from the Detroit College of Law in 1908. He engaged in the general practice of law from 1908 to 1910 and in the latter year, entered railway service as an assistant attorney on the Pere

John C. Shields

Marquette. In 1912 he was promoted to general attorney and in 1933 he was advanced to general solicitor, the position he held until his recent promotion, effective July 1.

S. R. Brittingham, Jr., a special assistant in the Department of Justice at Washington, D. C., has been appointed general attorney and commerce counsel of the Atchison, Topeka & Santa Fe, with head-

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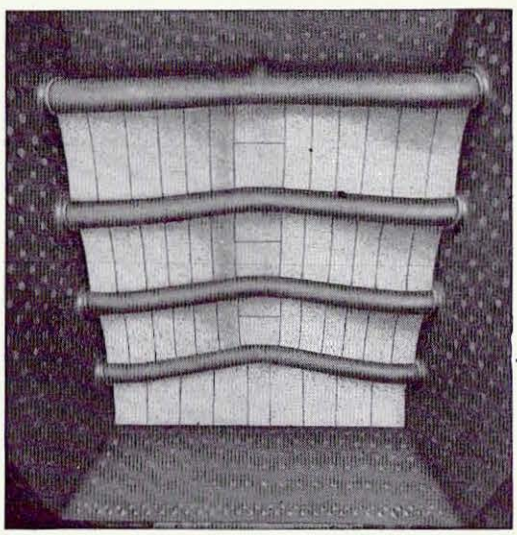
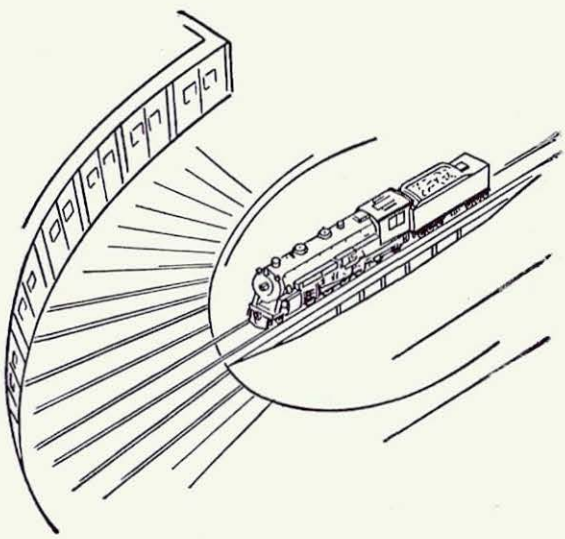
of an effective economical brick arch





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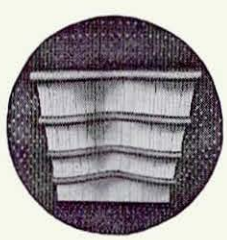

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quarters at Chicago, succeeding **Thomas F. King,** whose death on May 18 was reported in the *Railway Age* of May 30. Mr. Brittingham was born at Portsmouth, Va., and graduated from the University of Virginia Law School in 1932. He became law clerk to Chief Justice Groner of the United States Court of Appeals at Washington and in 1938 went with the Department of Justice.

F. E. Gregg, whose promotion to comptroller of the Central of New Jersey at Jersey City, N. J., was reported in the

F. E. Gregg

Railway Age of July 11, was born at Lambertville, N. J., on December 4, 1880. Mr. Gregg attended Temple University, Philadelphia, Pa., and entered railroad service on June 16, 1902, in the accounting department of the Central of New Jersey. On February 1, 1907, he became traveling auditor and on November 1, 1917, he was appointed chief clerk to comptroller. He was appointed auditor of miscellaneous accounts on April 16, 1929, and on November 16, 1937, he became assistant comptroller, which position he held until his recent promotion to comptroller.

W. H. Carpenter, whose promotion to auditor of disbursements of the Central of

W. H. Carpenter

New Jersey at Jersey City, N. J., was reported in the *Railway Age* of July 11, was born on October 22, 1885, at New York. Mr. Carpenter was educated at Friends Seminary, New York, and entered the service of the Central of New Jersey on November 7, 1918, in the engineering department. He was transferred to the accounting department as chief clerk to accounting engineer on March 1, 1920, and became chief clerk to auditor of disbursements on February 16, 1933. Mr. Carpenter was appointed assistant auditor of disbursements on November 16, 1937, which position he held until his recent promotion to auditor of disbursements, effective July 8.

Clark A. Eckart has been appointed attorney for western Washington of the Great Northern, with headquarters at Seattle, Wash., succeeding **Charles S. Albert,** who has retired.

Philip M. Kelly, whose appointment as assistant comptroller of the Central of New Jersey at Jersey City, N. J., was reported in the *Railway Age* of July 11, was born on July 3, 1895, at Marquette, Mich. He was educated in the public and high schools of Elizabeth, N. J., followed by evening courses at Y. M. C. A. Mr. Kelly entered the service of the Central of New Jersey as apprentice in the motive power department on September 9, 1912, and became draftsman on September 15, 1916. He was furloughed for military service with the 11th U. S. Engineers on May 21, 1917, re-

Philip M. Kelly

turning to the Central of New Jersey as draftsman on June 19, 1919. Mr. Kelly was promoted to inspector in the office of the superintendent motive power on June 1, 1920, and on February 9, 1925, he was appointed assistant chief clerk in the office of the general manager. He became research engineer in the accounting department on February 1, 1926, and was appointed auditor of disbursements on November 16, 1937, which position he held until his recent appointment as assistant comptroller, effective July 8.

Seward L. Merriam, whose retirement as general counsel of the Pere Marquette, with headquarters at Detroit, Mich., was reported in the *Railway Age* of July 18, was born at Romeo, Mich., on March 18, 1862, and attended the University of Michigan from 1881 to 1885. He was admitted to the bar in January, 1886, and engaged in the general practice of law at Port Huron, Mich., and Detroit until October 15, 1909, when he entered railway service as general solicitor of the Pere Marquette. On April 4, 1917, Mr. Merriam was promoted to general counsel, which position he held until his retirement, effective July 1. Mr. Merriam also served as mayor of Port Huron in 1892, prosecuting attorney of St. Clair county, Mich., in 1889 and 1890, and assistant prosecuting attorney of Detroit in 1900.

OPERATING

L. A. Kane, assistant superintendent of the Utah Railway, with headquarters at Provo, Utah, has been granted a leave of absence for military service.

Frank J. Kearley, trainmaster of the M. & N. O. division of the Louisville & Nashville, has been promoted to assistant superintendent, with headquarters as before at Mobile, Ala.

C. W. Ivey has been appointed trainmaster of the Missouri Pacific at Little Rock, Ark., succeeding **T. O. Weeks,** who has been promoted to assistant rules instructor.

I. P. Iverson, assistant superintendent of the Northern Pacific at Seattle, Wash., has been granted a leave of absence to serve as transportation specialist, U. S. Army Port Agency, in the territory between Portland, Ore., and Prince Rupert, B. C., with headquarters at Seattle.

D. P. Boykin, general yardmaster on the Southern Pacific at Eugene, Ore., has been promoted to trainmaster at that point, succeeding **C. H. Grant,** who has been transferred to Portland, Ore., replacing **F. E. Kalbaugh.** Mr. Kalbaugh has been transferred to Tucumcari, N. M., relieving **W. B. Sharp, Jr.,** who has been transferred to Carrizozo, N. M.

C. A. Hlavac, chief clerk to the superintendent of transportation of the Chicago Great Western at Chicago, has been promoted to superintendent of car service, with the same headquarters, succeeding to the duties of **R. B. Croll,** superintendent of transportation, who has been granted a leave of absence to serve with the Office of Defense Transportation in connection with the supply and movement of tank cars.

E. F. Morrison, assistant superintendent of dining car service of the Pennsylvania at Chicago, has been promoted to assistant to the general superintendent of dining car service, with the same headquarters. **J. P. Fehr,** assistant superintendent of dining car service at Columbus, Ohio, has been transferred to Chicago, succeeding Mr. Morrison, and **A. J. Fick,** commissary agent at Columbus, has been promoted to assistant superintendent of dining car service at that point, relieving Mr. Fehr.

A. S. McCann, terminal superintendent of the Southern Pacific, with headquarters at West Oakland, Cal., has been appointed assistant superintendent of the Los Angeles division, with headquarters at Los Angeles, Cal., succeeding **W. H. Marlin,** assigned to other duties. **Thomas F. Goodwin,** assistant terminal superintendent at West Oakland, has been promoted to terminal

News Department continued on next left-hand page

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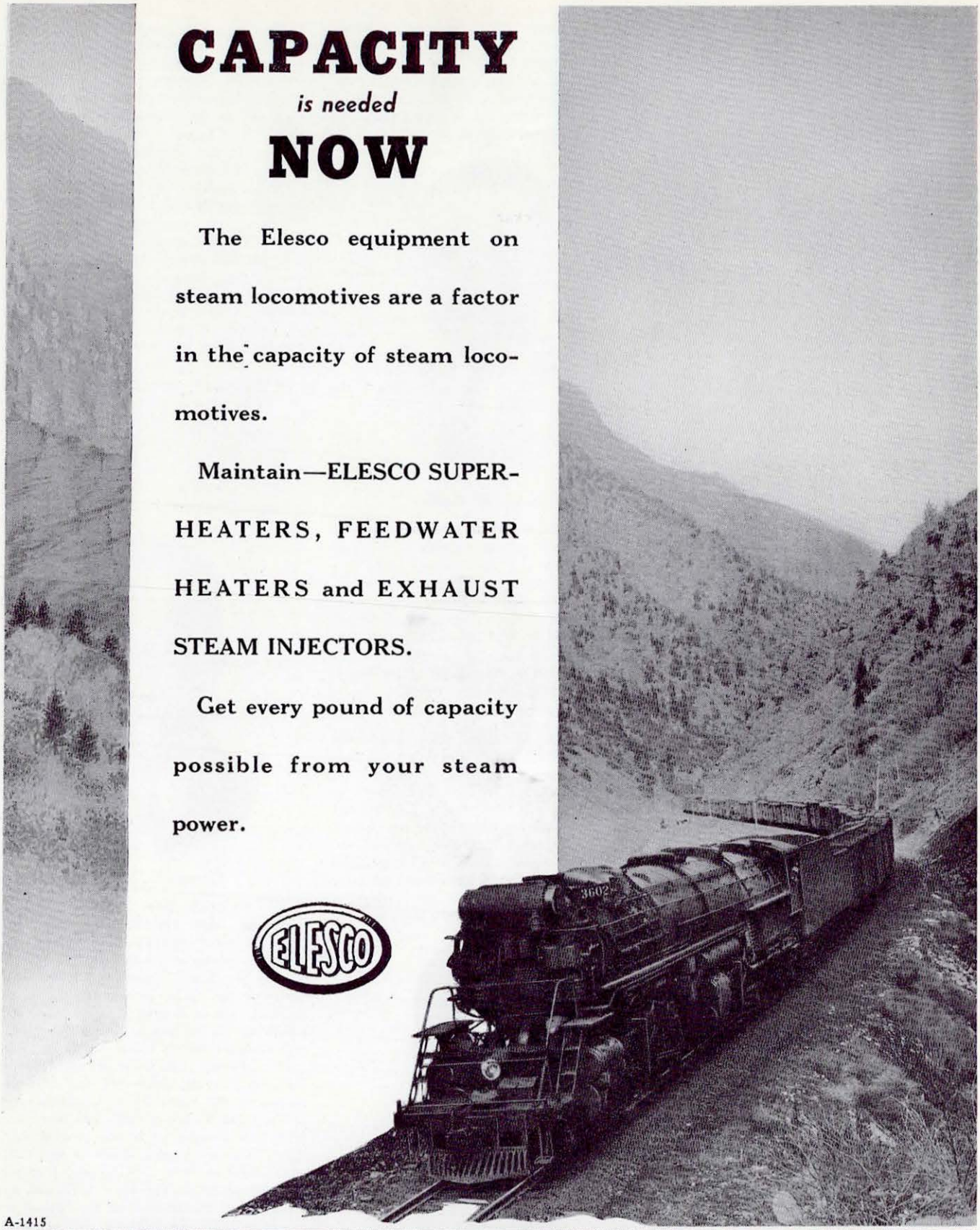

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superintendent at that point, relieving Mr. McCann, and **F. J. Dignon,** assistant terminal superintendent at Richmond, Cal., has been transferred to West Oakland, replacing Mr. Goodwin. **M. A. Jenson,** night general yardmaster at West Oakland, has been advanced to assistant terminal superintendent at Richmond, succeeding Mr. Dignon.

G. W. Raney, whose promotion to general manager of the Chicago, Rock Island & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of July 18, was born at Forrest City, Ark., on January 28, 1891, and attended the University of the South, Sewanee, Tenn. He entered railway service in July, 1910, as a brakeman on the Missouri Pacific, later becoming a switchman and a yardmaster. In 1917, he went with the Ogden Union Railway & Depot Company, Ogden, Utah, as a switchman and yardmaster and three years later he returned to the Missouri Pacific as a yardmaster at Kansas City, Mo., later becoming night general yardmaster. In November, 1926, he was promoted to trainmaster and served subsequently on the Omaha, Illinois and Central Kansas-Colo-

G. W. Raney

rado divisions. Mr. Raney left the Missouri Pacific to go with the Rock Island in March, 1936, as an inspector of transportation, with headquarters at Kansas City, Mo., and in November of that year he was promoted to superintendent, with headquarters at Ft. Worth, Tex. In February, 1937, he was transferred to the Missouri-Kansas division with headquarters at Kansas City, and in December, 1939, he was promoted to general superintendent, with headquarters at El Reno, Okla. In August, 1940, Mr. Raney was transferred to Des Moines, where he remained until his recent promotion.

Clarence R. Tucker, whose promotion to assistant general manager of the Southern district of the Western lines of the Atchison, Topeka & Santa Fe, with headquarters at Amarillo, Tex., was reported in the *Railway Age* of July 11, was born at Hallsville, Tex., on August 3, 1897, and attended Tyler (Tex.) Commercial college. He entered railway service in May, 1916, as a check clerk on the Santa Fe at Longview, Tex., and in January, 1917, went with the Texas & Pacific, serving as an operator and train dispatcher at various points. From 1921 to 1924 he served on the Southern Pacific at El Paso, Tex., and Tucson, Ariz., and in May, 1924, went with the Gulf, Colorado & Santa Fe (part of the Santa Fe system) as a train dispatcher, later being advanced successively to as-

Clarence R. Tucker

sistant chief dispatcher, trainmaster and superintendent of the Southern division, with headquarters at Temple, Tex. On September 1, 1939, Mr. Tucker was transferred to the Gulf division, with headquarters at Galveston, Tex., and on October 15, 1941, he was appointed acting assistant general manager of the Southern district of the Western lines of the Santa Fe, with headquarters at Amarillo, which position he held until his recent promotion.

George H. Minchin, whose promotion to general manager of the Western lines of the Atchison, Topeka & Santa Fe, with headquarters at Amarillo, Tex., was reported in the *Railway Age* of July 11, has been promoted to assistant vice-president, operating department, a newly created position, with headquarters at Chicago, and **George C. Jefferis,** assistant to vice-president at Chicago, has been advanced to general manager, Western lines, at Am-

George H. Minchin

arillo, succeeding Mr. Minchin. **O. L. Gray,** assistant general manager in charge of personnel of the Coast lines of the Atchison, Topeka & Santa Fe, with headquarters at Los Angeles, Cal., has been promoted to assistant to the vice-president in charge of operations at Chicago, succeeding Mr. Jefferis. **Henry H. Tisdale,** assistant to the general manager of the Coast lines at Los Angeles, has been advanced to assistant general manager, replacing Mr. Gray, and **L. D. Come,** manager of personnel at Chicago, has been appointed assistant to the general manager at Los Angeles, relieving Mr. Tisdale.

F. A. Baker, superintendent of the Albuquerque division, with headquarters at Winslow, Ariz., has been promoted to assistant general manager on the Coast lines, with jurisdiction over the Albuquerque and Arizona divisions and with headquarters at Los Angeles, and **Frederick J. MacKie,** assistant general manager at Los Angeles, will retain jurisdiction over the Los Angeles, Valley and San Francisco Terminal divisions. **A. B. Enderle,** division superintendent at Newton, Kans., has been transferred to Winslow, succeeding Mr. Baker. **Henry G. Arnold,** superintendent at Chillicothe, Ill., has been transferred to Newton, relieving Mr. Enderle, and **John B. Noe,** superintendent of the Chicago Terminal division, with headquarters at Chicago, has been transferred to Chilli-

George C. Jefferis

cothe, replacing Mr. Arnold. **R. D. Clousing,** night trainmaster on the Chicago Terminal division at Corwith, Ill., has been advanced to superintendent, succeeding Mr. Noe. A photograph and biography of Mr. Gray were published in the *Railway Age* of August 30, 1941, page 363, following his promotion to assistant general manager on the Coast lines.

Mr. Minchin was born at Springbrook, Ont., on July 20, 1882. He was first employed by the Santa Fe as a station clerk at La Junta, Colo., in 1902, and four years later was transferred to the general manager's office in Topeka, where he was made chief clerk in 1908. He became transportation inspector at Topeka in 1909, and was promoted to trainmaster on the Illinois division in 1917. In 1920, he was promoted to assistant superintendent of the Illinois division, and after serving in a similar capacity on the Missouri division, was promoted to superintendent of the Illinois division at Chillicothe, Ill., on November 1, 1922. On November 1, 1938, when the divisions were consolidated, he was named superintendent of both the Illinois and Missouri divisions. On August 1, 1939, Mr. Minchin was advanced to assistant gen-

eral manager of the Southern district of the Western lines, with headquarters at Amarillo, and on October 15, 1941, he was appointed acting general manager of the Western lines. On July 1, 1942, Mr. Minchin was advanced to general manager of the Western lines, which position he held until his recent promotion.

Mr. Jefferis was born in Philadelphia, Pa., on September 27, 1889, and entered railway service on December 4, 1903, as a telegraph operator on the Pennsylvania. On March 28, 1911, he went with the Santa Fe as a chainman at Amarillo, Tex., and later served as a rodman, transitman, draftsman, assistant extra gang foreman and an extra gang foreman at various places in Texas and New Mexico. In August, 1916, Mr. Jefferis was promoted to roadmaster, with headquarters at Plainview, Tex., and on June 16, 1917, he was further advanced to division engineer, with headquarters at Clovis, N. M. In February, 1924, he was promoted to assistant superintendent of the Middle division, with headquarters at Newton, Kans., and in September, 1935, he was advanced to superintendent of the Slaton division, with headquarters at Slaton, Tex. Mr. Jefferis was transferred to the Oklahoma division, with headquarters at Arkansas City, Kans., on July 25, 1936, and on July 1, 1938, he was promoted to assistant general manager of the Northern district, Western lines, of the Santa Fe, with headquarters at La Junta, Colo. Mr. Jefferis was promoted to assistant to vice-president, with headquarters at Chicago, on July 1, 1939, the position he held at the time of his recent promotion.

TRAFFIC

Fred Lingenfelder has been appointed assistant general passenger agent of the Union Pacific at Portland, Ore., a newly created position.

Paul H. Coon, general freight agent of the Missouri Pacific Lines at Houston, Tex., has been transferred to St. Louis, Mo., succeeding **Clifford C. Hahne,** who, in turn, has been transferred to Houston, replacing Mr. Coon.

A. A. Wilson, general agent for the Chicago, Milwaukee, St. Paul & Pacific at Chicago, has been promoted to assistant general freight agent, with the same headquarters, and **J. M. Cunningham,** general agent at Pittsburgh, Pa., has been transferred to Chicago, succeeding Mr. Wilson.

E. C. Patton, general agent for the Louisville & Nashville at Detroit, Mich., has been promoted to division freight agent at Lexington, Ky., succeeding **Milton C. Browning,** whose death on April 30 was reported in the *Railway Age* of May 9. **C. M. Cox,** commercial agent at Little Rock, Ark., has been advanced to general agent at Detroit, relieving Mr. Patton.

C. E. Loubert, assistant general baggage agent of the Southern Pacific, has been appointed supervisor of train service, with headquarters as before at San Francisco, Cal., succeeding **Leroy C. Ioas,** whose promotion to assistant to the vice-president in charge of system passenger traffic was reported in the *Railway Age* of May 30.

Harry W. Williams, commercial agent for the Illinois Central at Birmingham, Ala., has been appointed general agent at Minneapolis, Minn. Mr. Williams succeeds **C. H. Campbell,** commercial agent, who has been transferred to Peoria, Ill., replacing **Rommie B. Smith,** whose promotion to assistant coal traffic manager, with headquarters at Chicago, is reported elsewhere in these columns.

J. J. Nolan, assistant general passenger agent for the Pullman Company, has been promoted to general passenger agent, with headquarters as before at Chicago, succeeding **F. A. Pullman,** acting general passenger agent, who retired on June 1 because of ill health. **Howard Lowder,** assistant general passenger agent at New York, has been transferred to Chicago, succeeding Mr. Nolan, and **E. A. Hurley,** district passenger agent at Boston, Mass., has been advanced to assistant general passenger agent at New York, relieving Mr. Lowder.

James C. Higgins, assistant to freight traffic manager of the Wabash, with headquarters at St. Louis, Mo., has been appointed freight traffic manager (rates and divisions) of the New York, Ontario & Western at New York. Mr. Higgins was born at Elizabeth, N. J., on June 25, 1904, and entered railroad service with the Lehigh Valley rate department at New York, which position he left to assume solicitation positions with the Wabash at New York. On September 3, 1938, he went to the general office of the Wabash at St. Louis where he engaged in agency administrative duties. On February 16, 1941, Mr. Higgins was appointed assistant to freight traffic manager of the Wabash, handling rate legislative committee assignments, which position he held until his recent appointment as freight traffic manager of the New York, Ontario & Western at New York.

James C. Higgins

James E. Doyle, whose promotion to assistant to the vice-president-traffic of the Chesapeake & Ohio and the Pere Marquette, with headquarters at Cleveland, Ohio, was reported in the *Railway Age* of July 11, was born at Richmond, Va., on February 9, 1903, and attended William and Mary Extension College. He entered railway service on August 1, 1921, on the C. & O., as a junior clerk in the office of the general auditor at Richmond, and four months later, went with the Southern as a stenographer in the office of the general freight agent at that point. On November 1, 1922, Mr. Doyle became rate clerk in the office of the assistant general freight agent of the Atlantic Coast Line at Richmond and on March 1, 1923, he returned to the C. & O., as a stenographer in the office of the vice-president in charge of traffic, later serving as secretary to the assistant vice-president. On June 1, 1929, Mr. Doyle was appointed secretary to the vice-president in charge of traffic, with headquarters at Cleveland, Ohio, and on January 1, 1933, he was promoted to chief clerk to the vice-president-traffic of the C. & O. and the Pere Marquette, which position he held until his recent promotion, effective July 1.

James E. Doyle

John Carlyle Warren, assistant general freight agent of the Seaboard Air Line, has been promoted to general freight agent in charge of divisions, with headquarters as before at Norfolk, Va. Mr. Warren was born on March 12, 1893, at York, S. C., and entered railroad service in December, 1908, in the local office of the Atlantic Coast Line, where he served until 1916. He then entered the claim department of the Norfolk Southern, leaving in July, 1920, to enter the service of the Seaboard Air Line as clerk in the general freight office. On March 10, 1930, Mr. Warren became office manager and on August 1, 1936, he became assistant general freight agent, which position he held until his recent promotion to general freight agent.

J. B. Dorrance, Jr., division passenger agent of the Pennsylvania, with headquarters at Baltimore, Md., has been promoted to assistant general passenger agent at Philadelphia, Pa. **M. F. Jackman,** special representative on the staff of the passenger traffic manager at Philadelphia, has been promoted to division passenger agent, on special duty, in the same office. **R. B. Stoll,** district passenger agent at Newark, N. J., has been appointed division passenger agent at Cleveland, Ohio. **W. L. Wright, Jr.,** district passenger agent at Dallas, Tex., has been transferred to Newark, to suc-

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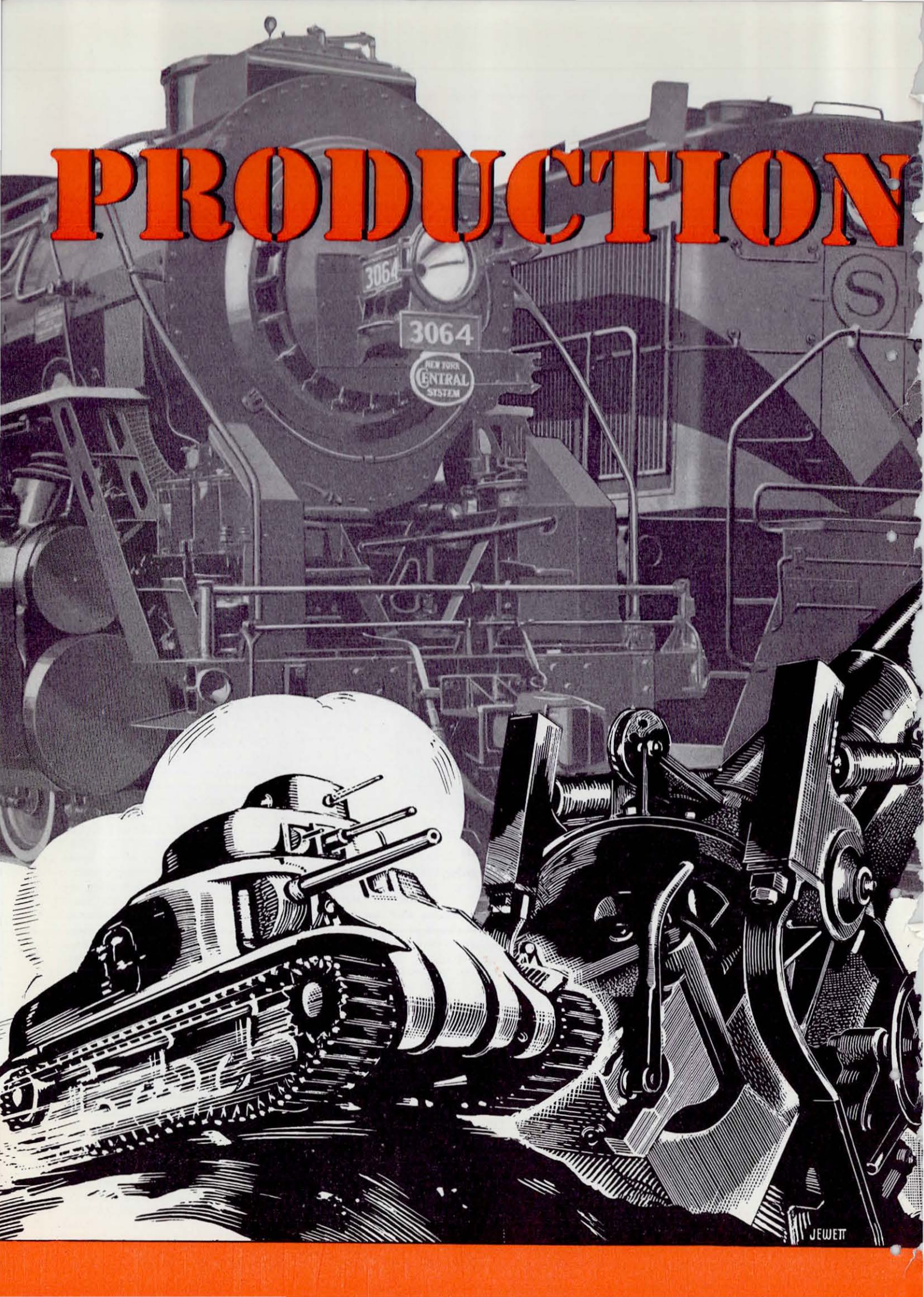
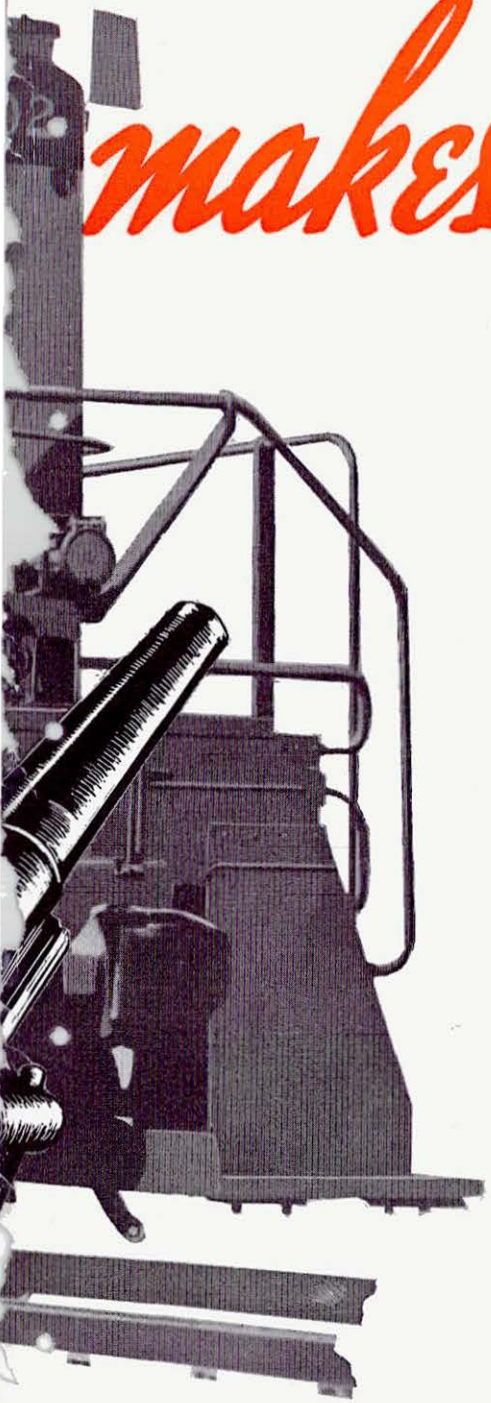
PRODUCTION



makes HEADLINES

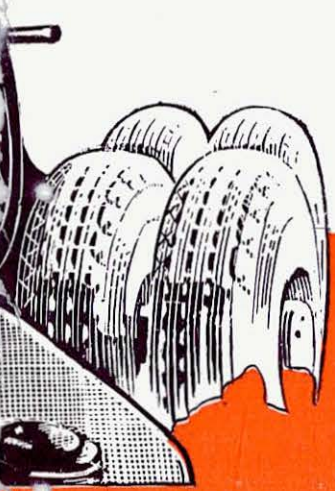


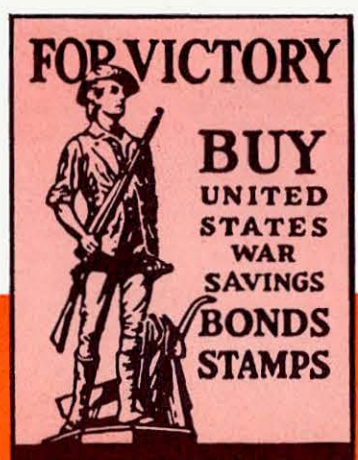
First to get into production on medium tanks, American Locomotive is now rolling them out at a far greater rate than already stepped-up contract obligations. Moreover, coming off the line today, they bear only a faint resemblance to the first ones produced a little over a year ago. Progressive design and manufacturing developments have greatly increased their effectiveness.

Gun carriages are being currently delivered at a far greater rate than required by our contract. All of Alco's orders for fragmentation bombs have been completed ahead of schedule. Shell production, too, is well ahead of expectations.

And our railroads need locomotives. Over and above the responsibility of an immense increase in their own traffic, they are being called upon to handle more and more traffic which in peace times depended almost entirely on steamships and trucks. Our railroads must continue to expand and Alco, therefore, continues to build locomotives.

Expansion and conversion of facilities on so gigantic a scale is never an easy job, but it was comparatively simple for Alco. Years of experience in building giant locomotives have given Alco the confidence, the tools and the know-how to tackle big jobs.





AMERICAN LOCOMOTIVE

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ceed Mr. Stoll. **R. H. Clare,** New England passenger representative, who has been in charge of the Pennsylvania's new Boston ticket office since it was opened in August, 1941, has been appointed division passenger agent at St. Louis. **C. R. James** has been appointed division passenger agent at Baltimore. **G. H. Brown, Jr.,** division passenger agent at Cleveland, has been transferred to Pittsburgh. **W. G. S. Savage, Jr.,** has been appointed New England passenger agent at Boston, Mass., succeeding Mr. Clare. **C. S. Herr, H. E. Weaver** and **J. W. Miller, Jr.,** have been appointed district passenger agents at Washington, D. C., Dallas, Tex., and Houston, Tex., respectively.

ENGINEERING & SIGNALING

F. R. Smith, engineer of bridges and buildings of the Union Railroad, with headquarters at East Pittsburgh, Pa., has been appointed assistant chief engineer in charge of bridges and buildings.

John P. Scully, general agent of the Maine Central at Lewiston, Me., has been promoted to division engineer of the Portland division, with headquarters at Portland, Me., succeeding **E. A. Johnson,** who is to be assigned to other duties.

S. T. Roberston, engineer-roadmaster of the Burlington-Rock Island, with headquarters at Houston, Tex., has been promoted to district maintenance engineer of the Chicago, Rock Island and Pacific, with headquarters at Kansas City, Mo., succeeding **C. H. Hardwick,** whose promotion to engineer maintenance of way, with headquarters at Chicago, was reported in the *Railway Age* of July 11.

Frank W. Thompson, whose promotion to chief engineer of the Chicago, Rock Island & Pacific, with headquarters at Chicago, was reported in the *Railway Age* of July 18, was born at Silver Cliff, Colo., on January 26, 1881, and attended the University of Kansas for five years. He entered railway service on July 1, 1899, as a levelman on the Rock Island at Kansas City, Mo., returning to school that fall. On July 6, 1903, he was appointed draftsman and estimator on the Rock Island at Kansas City. During the next few years he served as draftsman, instrumentman and transitman at various points on the Rock Island, and on October 30, 1907, he was transferred to Chicago on office work and drafting. Mr. Thompson was promoted to assistant office engineer on August 2, 1908, and on December 17, 1909, he was appointed assistant engineer at Davenport, Iowa. On February 1, 1911, he was advanced to division engineer, with headquarters at Des Moines, Iowa, and on January 1, 1929, he was transferred to Rock Island, Ill. On October 1, 1939, Mr. Thompson was promoted to engineer officer, with headquarters at Chicago, which position he held until his recent promotion.

Frank W. Thompson

MECHANICAL

M. C. Prentiss has been appointed engineer of motive power of the New York, Ontario & Western, with headquarters at Middletown, N. Y. **R. L. Rex** has been appointed mechanical assistant.

P. M. Mitchell, shop superintendent of the Erie at Port Jervis, N. Y., has been appointed chief shop inspector at Cleveland, Ohio, succeeding **L. S. Kurfess,** who has been furloughed to accept commission in the United States Army.

Gerald P. Trachta, assistant chief operating officer-mechanical of the Chicago, Rock Island & Pacific, has been appointed general superintendent of motive power, with headquarters as before at Chicago, a change of title.

D. L. Ringler has been appointed master mechanic of the Eastern division of the Texas & Pacific, with headquarters at Marshall, Tex., succeeding **H. C. Vinsant,** whose appointment as shop superintendent at Ft. Worth, Tex., was reported in the *Railway Age* of June 6.

W. M. Tollefson, locomotive engineer of the Illinois Central at Waterloo, Iowa, has been promoted to fuel engineer at Memphis, Tenn., succeeding **T. C. Nelms,** who has been promoted to traveling engineer on a portion of the Kentucky division. **D. A. Guidry,** locomotive engineer at Baton Rouge, La., has been advanced to fuel engineer at Chicago, relieving **F. Webb,** who has been promoted to traveling engineer on the Iowa division, west of Waterloo.

PURCHASES AND STORES

M. C. Nystrom and **E. J. Becker,** assistant purchasing agents on the Southern Pacific at San Francisco, Cal., have been appointed assistant general purchasing agents, with the same headquarters. **E. H. Polk,** assistant purchasing agent at Los Angeles, Cal., and **Clifford Thorburn,** assistant purchasing agent at Portland, Ore., have been appointed purchasing agents, with the same headquarters.

SPECIAL

Martin T. Dyer, assistant chief special agent of the Southern Pacific since February, 1919, retired on July 1 after nearly 41 years of railroad service.

OBITUARY

Samuel J. Cooke, who retired in 1936 as assistant general freight agent of the Chicago, Indianapolis & Louisville (Monon), with headquarters at Chicago, died at his home in that city on July 18 after a two months illness.

W. A. Roderick, engineer of maintenance of way and structures of the Wheeling & Lake Erie, with headquarters at Brewster, Ohio, died suddenly on July 17. Mr. Roderick had been in ill health for several months.

Walter H. Norris, former bridge engineer of the Maine Central at Portland, Me., died in that city on July 11 at the age of 72. Mr. Norris served as bridge engineer of that road from 1910 to 1933 and as assistant engineer of structures from 1933 to 1936.

James A. Carney, at one time superintendent of shops of the Chicago, Burlington & Quincy at West Burlington and later successively, superintendent of shops at Aurora, Ill., supervisor of fuel economy, with headquarters at Chicago, and superintendent of safety, with the same headquarters, who retired in 1937, died of a heart attack at his home in Auroro on July 17.

Dr. Glenn I. Jones, chief surgeon of the Southern, with headquarters at Washington, D. C., died of a heart attack on July 18 on a New Orleans to New York passenger train somewhere between Spartanburg and Gaffney, S. C., at the age of 58. Mr. Jones was born at Washington, D. C., on November 25, 1883, and received his M.D. in 1905 from George Washington University. He attended Army Medical school, Army War College and the School of Aviation Medicine. Mr. Jones had been chief surgeon of the Southern since 1937, when he retired as a colonel in the Army Medical Corps. He was a member of the Committee of Direction, Medical & Surgical Section, Association of American Railroads.

Henry W. Clark, vice-president and general counsel of the Union Pacific at New York, died on July 17 at his home in that city after a brief illness, at the age of 67. Mr. Clark was born at Castleton, Vt., on July 27, 1874, and attended the University of Vermont, receiving his A.B. degree in 1897 and his LL.D. in 1922 from that university. He received his LL.B. in 1899 from New York Law School. From 1899 to 1909 he was law clerk in the offices of Sullivan & Cromwell and O'Brien, Boardman & Platt at New York, becoming attorney in the New York law department of the Union Pacific and joint Southern Pacific systems in 1909. He held the latter position until 1913, when he became counsel for the Union Pacific, then serving successively as general counsel and vice-president and general counsel. At the time of his death Mr. Clark was a member of the law firm of Clark, Carr & Ellis, New York. He was an active member of the law committee of the Association of American Railroads for many years.

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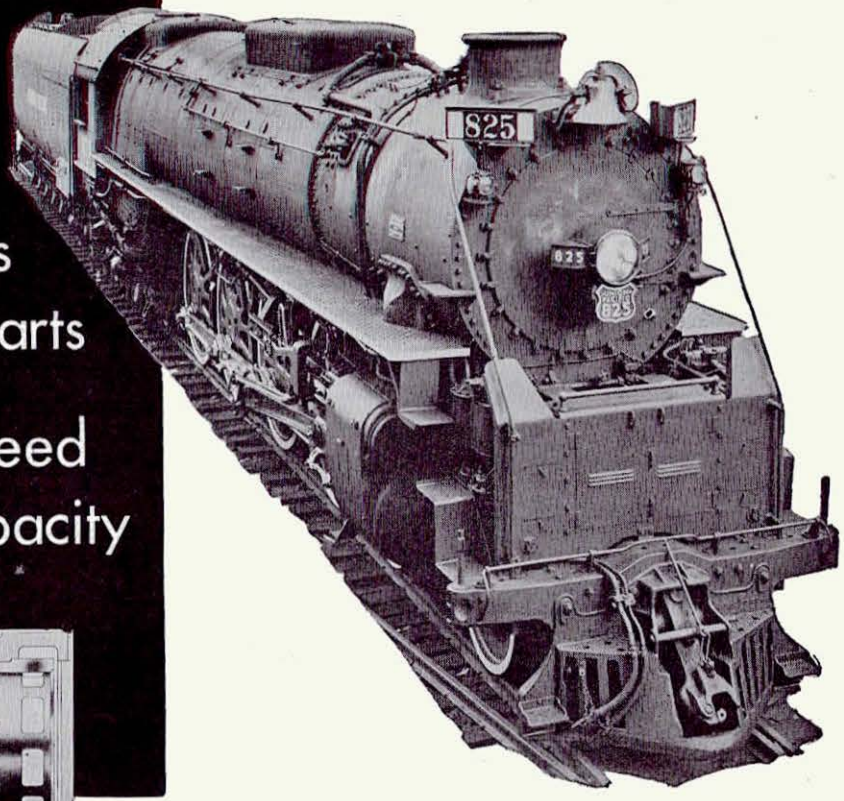

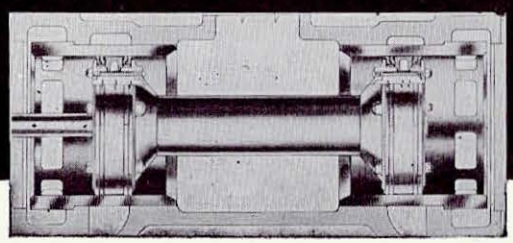

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ALL HAVE FULL "U" CAST STEEL TRUCK FRAMES.

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Yours for Victory,

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FOR SALE

1—80 ton Baldwin **ELECTRIC SWITCHING LOCOMOTIVE,** steeple type, 11000 Volt Trolley with 4—410-B Westinghouse Motors, single phase, 25 cycles, 190 V., 650 Amps., 125 HP.

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6—General Electric **TRANSFORMERS,** 25 cycles, 11000/9900 to 440/220 V., 3000 WATT.

2—General Electric **MOTOR GENERATOR SETS;** each consisting of

1—Exciter 125 V., 24 Amps.
1—A.C. Generator, 2200 V., 30.5 Amps.
1—75 HP Motor; 25 cycles; 440 V., 90 Amps.
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Educational Service for RAILROAD MEN

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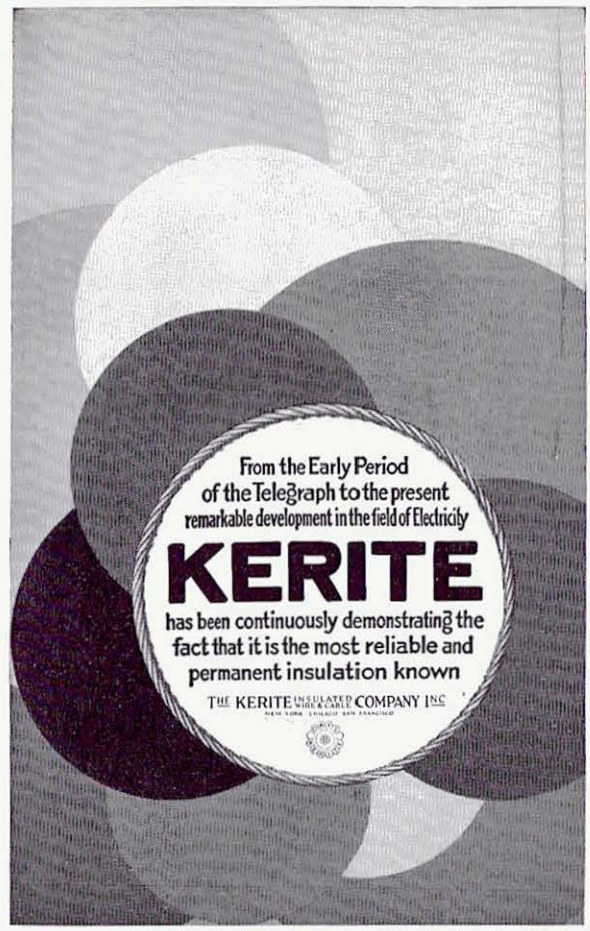
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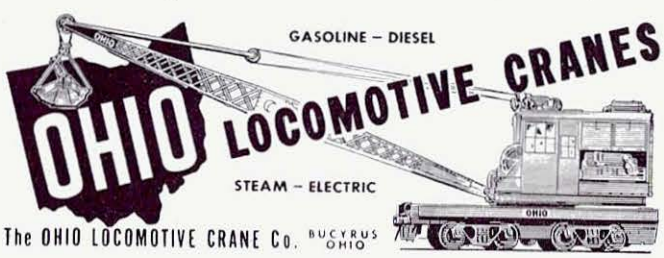

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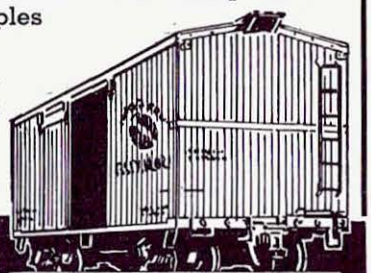

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Name.....

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Position.....Company.....

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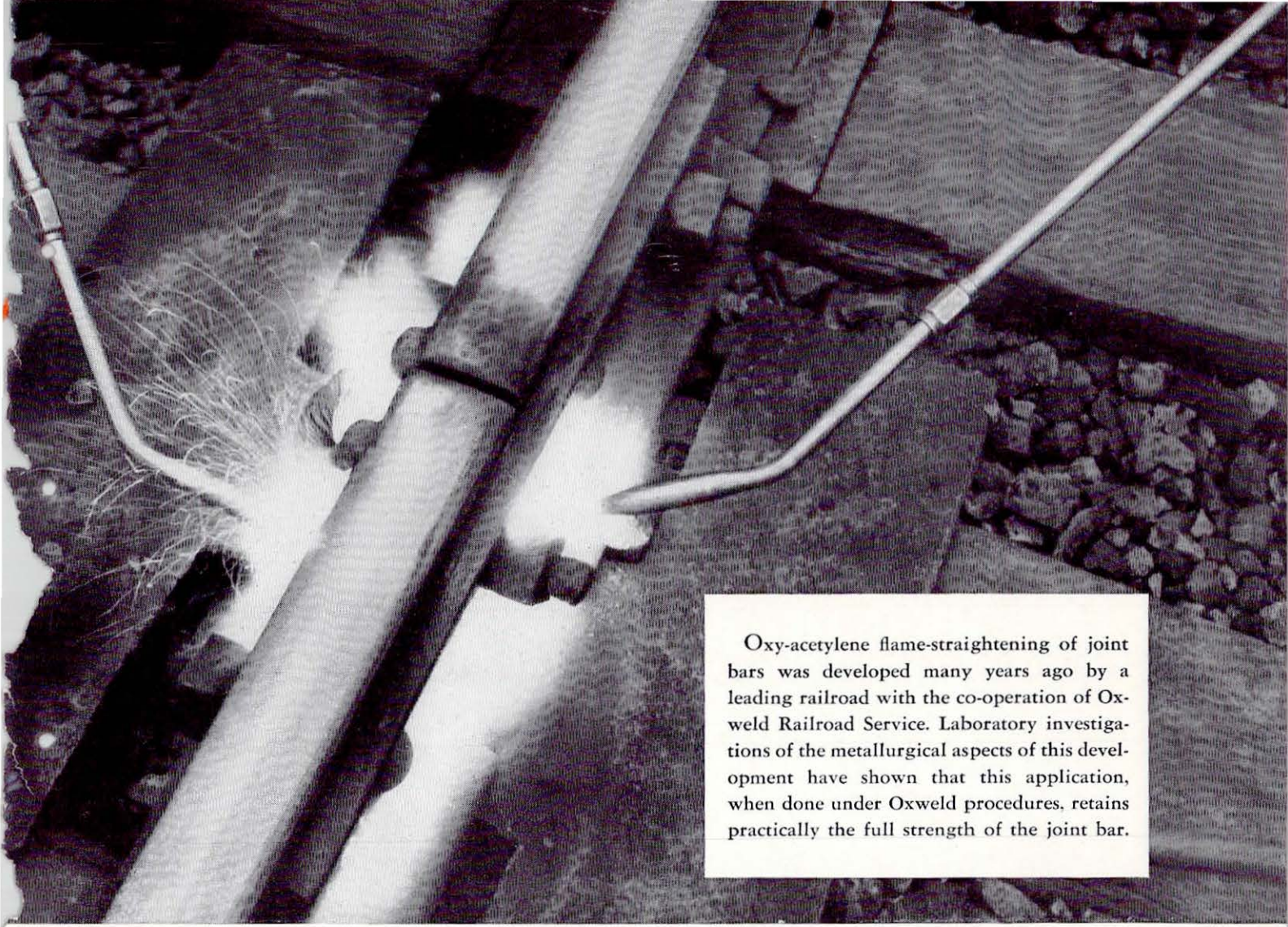

Oxy-acetylene flame-straightening of joint bars was developed many years ago by a leading railroad with the co-operation of Oxweld Railroad Service. Laboratory investigations of the metallurgical aspects of this development have shown that this application, when done under Oxweld procedures, retains practically the full strength of the joint bar.

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Conserves Materials and Equipment

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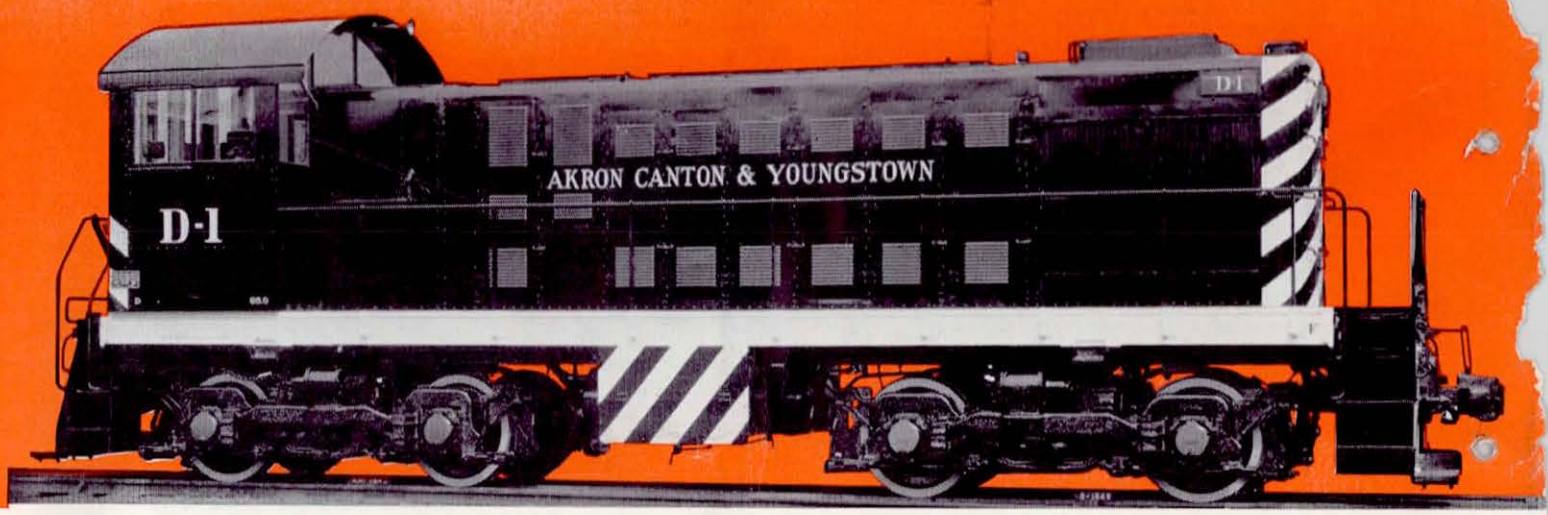

We quote from a letter written by H. B. Stewart, Jr., Trustee for the Akron, Canton & Youngstown Railway.

> "The fuel oil consumption on this locomotive (referring to the one pictured above, a 1000 H.P. Alco - G. E. diesel built by American Locomotive Company on which Timken Roller Bearings were specified) which is working 24 hours per day, has averaged slightly less than five gallons per hour. We understand that the lowest recorded average consumption of fuel oil by friction bearing 1000 H.P. diesel switchers has been seven gallons per hour. This substantial fuel oil saving is naturally of real importance in these times and will in itself quickly cover our expenditure for bearings."

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